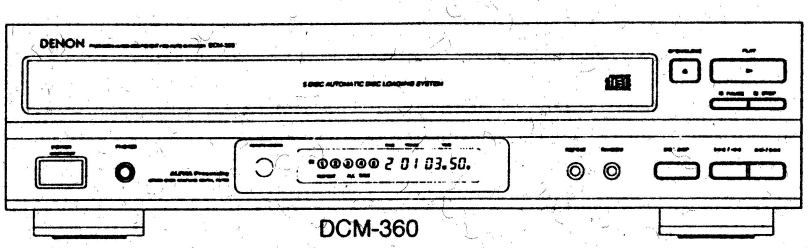
DENON

Hi-Fi Stereo CD Player

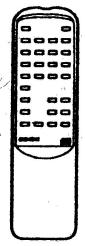
SERVICE MANUAL

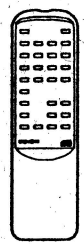
MODEL DCM-360/260

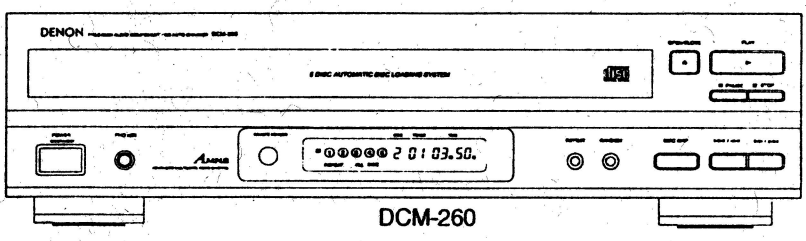
STEREO CD PLAYER



DCM-360







DCM-260

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NIPPON COLUMBIA CO., LTD.

SPECIFICATIONS

AUDIO	DCM-360	DCM-260
Number of Channels	2 Channels	
Frequency Characteristics	2 ~ 20,000 Hz	
Dynamic Range	99 dB	98 dB
S N Ratio	108 dB	108 dB
High Frequency Distortion	0.0025% (1kHz)	0.0028%
Separation	98 dB	98 dB
Wow and Flutter	Less than the measuring (+0.001% W. peak)	
Output Voltage	Variable 0.2 ~ 2.0 V	
DISC USED	Audio compact discs are used 12 cm (5 in) and 8 cm (3 in)	
OVERALL		
Power Supply	60 Hz, Voltage is shown on rating label	
Power Consumption	11 W	
External Dimensions	434 (W) × 114 (H) × 398 (D) mm (17–3/32" × 4–17/32" × 15–11/16")	
Weight	5.4 kg (11.9 lbs.)	5.4 kg (11.9 lbs)

FUNCTIONS AND DISPLAY	
Functions	Five discs can be used, Direct Track Selection, Program Selection, Random Play, etc.
Displays	Disc No., Track No., Time (min., sec.), Play, Pause, Repeat, Random, etc.
Other	Headphone Jack (Level Variable)
REMOTE CONTROL UNIT RC-258	
Remote Control Method	Infrared Pulse system
Power Supply	3 V DC Two R6P (standard SIZE AA)
External Dimensions	50 (W) × 175 (H) × 18 (D) mm (1–31/32" × 6–57/64" × 45/64")
Weight	100g (approx. 3 oz) (Includes batteries)

* Design and specifications are subject to change without notice in the course of product improvement.

IMPORTANT TO SAFETY

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

1. **Handle the power supply cord carefully**
   Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.
2. **Do not open the top cover**
   In order to prevent electric shock, do not open the top cover. If problems occur, contact your DENON dealer.
3. **Do not place anything inside**
   Do not place metal objects or spill liquid inside the CD player. Electric shock or malfunction may result.

Please, record and retain the Model name and serial number of your set shown on the rating label.

Model No. DCM-360/260 Serial No. _____

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the appliance.

NOTE:
This CD player uses the semiconductor laser. To allow you to enjoy music at a stable operation, it is recommended to use this in a room of 10°C (50°F) – 35°C (95°F).

LABELS (for U.S.A. model only)

CERTIFICATION

THIS PRODUCT COMPLIES WITH DHHS RULES 21CFR SUB-CHAPTER J APPLICABLE AT DATE OF MANUFACTURE.

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

NOTE:
This unit may cause interference to radio and television reception if you do not operate it in strict accordance with this OPERATING INSTRUCTIONS.

This unit complies with Class B computing device rules in accordance with the specifications in Sub-part J or Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If the unit does cause interference to any radio or television reception, try to reduce it by one or more of the following means:
a) Turn the other unit to improve reception
b) Move this unit
c) Move this unit away from others
d) Plug this unit respectively into a different AC outlet

*** This is note in accordance with Section 15.838 of the FCC Rules.**

- **FOR U.S.A. & CANADA MODEL ONLY**

CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

- **POUR LES MODELES AMERICAINS ET CANADIENS UNIQUEMENT**

ATTENTION

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

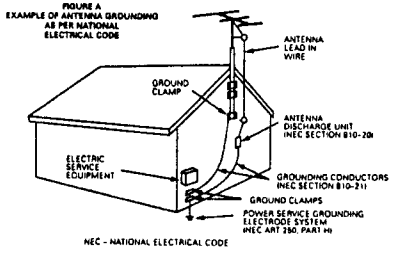
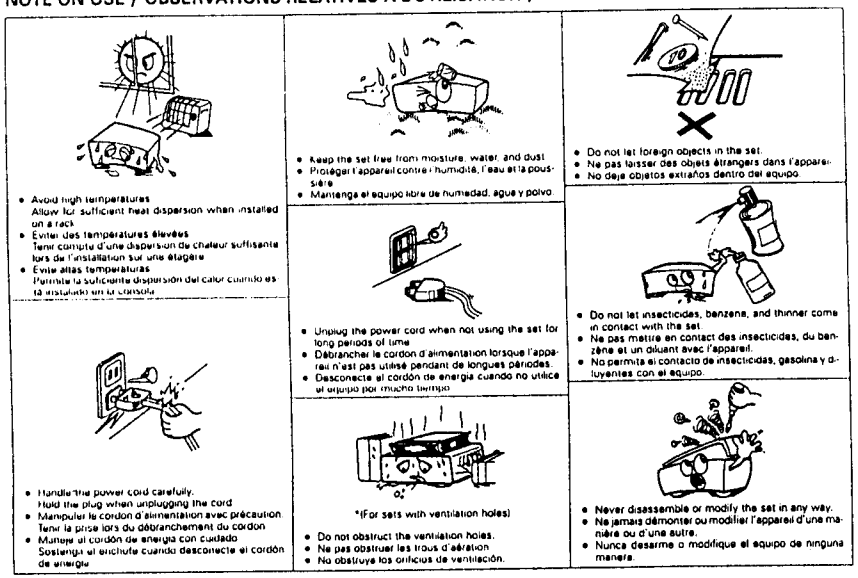


FIGURE A
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE
ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC - NATIONAL ELECTRICAL CODE

12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines – An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

NOTE ON USE / OBSERVATIONS RELATIVES A L'UTILISATION / NOTAS SOBRE EL USO



- Avoid high temperatures
  Allow for sufficient heat dispersion when installed on a rack
- Eviter des températures élevées
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère
- Evite altas temperaturas
  Permita la suficiente dispersión del calor cuando es tá instalado en la consola

- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Manipuler le cordon d'alimentation avec précaution
  Tenir la prise lors du débranchement du cordon
- Maneje el cordón de energía con cuidado
  Sostenga el enchufe cuando desconecte el cordón de energía

- Keep the set free from moisture, water, and dust.
- Protéger l'appareil contre l'humidité, l'eau et la poussière
- Mantenga el equipo libre de humedad, agua y polvo.

- Unplug the power cord when not using the set for long periods of time.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.
- Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo.

*(For sets with ventilation holes)

- Do not obstruct the ventilation holes.
- Ne pas obstruer les trous d'aération
- No obstruya los orificios de ventilación.

- Do not let foreign objects in the set.
- Ne pas laisser des objets étrangers dans l'appareil.
- No deje objetos extraños dentro del equipo.

- Do not let insecticides, benzene, and thinner come in contact with the set.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.
- No permita el contacto de insecticidas, gasolina y disolventes con el equipo.

- Never disassemble or modify the set in any way.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.
- Nunca desarme o modifique el equipo de ninguna manera.

Thank you for purchasing the DENON compact disc player. Read the Operating Instructions thoroughly, and operate this player properly.

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In addition to the CD Player unit, please check to make sure the following items are included in the packing box.

(1) Operating Instructions 1
(2) Connection Cords 1
(3) Remote Control Unit RC-258 1
(4) R6P (AA size) Dry batteries 2

IMPORTANT
(CANADIAN MODEL ONLY)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus setout in the Radio Interference Regulations of the Canadian Department of Communication.

FEATURES

The DCM-360 and DCM-260 are CD Players equipped with DENON's unique ALPHA Processor and A.M.N.S (Advanced Multilevel Noise Shaping) for eliminating sound quality deterioration in the PCM playback system in order to faithfully recreate the sound field of live halls or studios where compact discs are recorded. These models use carefully selected parts to provide high performance and sound field recreation with rich musical expression.

(1) **ALPHA Processor (DCM-360)**
The high speed interpolation operations of the newly developed ALPHA Processor reproduce the LSB (lowest significant bit) data lost from the disc upon recording to provide a smooth waveform. The audible effects of ALPHA Processing are particularly great during playback at low levels at the instant the sound fades out.

(2) **A.M.N.S (Advanced Multilevel Noise Shaping) (DCM-260)**
The use of DENON's unique system for preventing zero-cross distortion, the main factor in loss of sound quality in the PCM playback section, plus multilevel noise shaping/Δ Σ D/A converters with superior resolution, offers reproduction of the original sound field with rich musical expression.

(3) **High performance digital filter**
The DCM-360/260 uses high precision 8-times oversampling digital filters.

(4) **Simple Playback of 8cm CD Singles**
8cm CD singles can be played without using an adaptor.

(5) **Programming of up to 20 tracks**
All of the tracks on a CD can be programmed to play in any order. Programming in units of discs (all tracks on a disc) is also possible.

(6) **Newly developed carousel-type changer mechanism included**
This mechanism can house five discs, and while one disc is playing the remaining four discs can be changed. In addition, the carousel can be rotated either clockwise or counterclockwise, so searching between discs is fast.

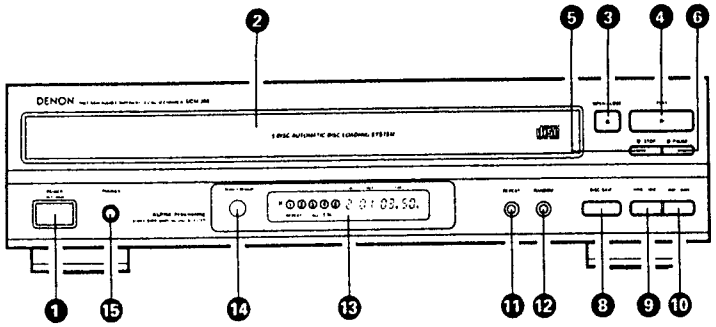
(7) **Wireless Remote Control Accessory**
In addition to general operations such as Play, Stop and Pause, this remote control unit enables direct selection, direct programming, and other functions. Use of the remote control unit adds greatly to the operating ease of the DCM-360/260, enhancing its outstanding features.

CAUTIONS DURING USE

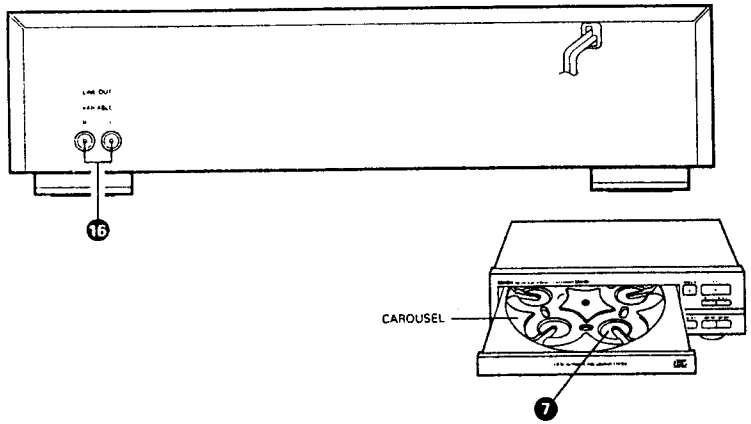
- This compact disc player is capable of playing discs which have the mark at right.
- During track selection, during search and when the player sustains a strong impact, the disc's rotational speed changes greatly, causing a small noise to be emitted. This is not a malfunction of the player.
- If the CD player is operated while an FM or AM broadcast is being received, there may be noise in the FM or AM reception. Please switch the power to the CD player off at such times.
- The DCM-360/260 has a broad dynamic range. Please exercise caution when turning up the volume on the amplifier in cases when the playback volume is low. If the volume is turned up too high, it could damage the speakers.
- Do not use any discs but exclusive audio discs with this CD player.
- Placing this player or its connection cords near a TV or other audio device could cause a humming sound to be emitted. If this occurs, relocate the player or reroute the connection cords.
- Be sure to remove the disc from the player before moving it. The disc could be damaged if left in the player while it is being moved.
- Do not place any object in the tray in the position where the disc is loaded, or open and close the tray with anything inside. Foreign objects in the tray could damage the play mechanism.
- Do not move the player from a cold place to a warm place suddenly. If the player is cold when brought into a warm room, condensation could form, preventing proper operation of the player. If condensation does form on the player when it is brought into a warm room, wait at least 30 minutes before use.

NAMES OF PARTS AND THEIR FUNCTIONS

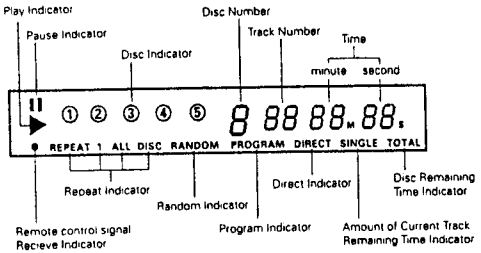
FRONT PANEL



REAR PANEL



DISPLAY



❶ Power Switch (POWER)
- Press this button to switch on the power.
- When the power is turned off, the unit is set to the standby mode.
  If the power is turned off during playback or while the disc information is displayed on the time display, several seconds after the power is turned back on, the number of the disc appears on the disc number display, the total number of tracks on that disc is displayed on the track number display, and the total time is displayed on the time display, and approximately 1 second later playback starts.

❷ Loading drawer
- Discs can be loaded and unloaded when this drawer is open. Do not force the drawer closed by hand.

❸ Open / Close Button (⏏ OPEN / CLOSE)
- Press this button when opening.
- The drawer is opened toward the front.
- Press the button again to close the drawer.

❹ Play Button (▶ PLAY)
- Press this button to play a disc.
  The [▶] indicator lights up when the button is pressed, the number of the disc and the track being played is displayed by the Disc Number and Track No. indicator, and the amount of elapsed time for the current track is displayed by the Time indicator.
- The [▶] indicator goes off after playing of the final track of the final disc is finished and the player stops.

❺ Stop Button (■ STOP)
- Press this button to stop play.

❻ Pause Button (II PAUSE)
- Press this button to stop play temporarily.
- Pressing the Pause button during play stops play temporarily. The [▶] indicator goes off and the [II] indicator lights up
- To cancel the Pause state, press either the Play button ❹ or press the Pause button ❻ a second time.

❼ Disc trays (1 ~ 5)
- One disc per tray can be loaded.

❽ Disc skip button (DISC SKIP)
- Each time this button is pressed, the carousel will rotate in a clockwise direction to the next tray position. This allows for loading or unloading of discs.
  This button is also used to select the next disc, in the normal play continuously.

❾ Automatic / Manual Search Reverse Button (|◀◀ / ◀◀)
- Press this button to return the pickup to the beginning of the present track. Press again to return to other tracks.
- By pressing the button a number of times, the pickup will move back the corresponding number of tracks.
- Keep on pressing this button for more than 0.5 seconds during playback for fast reverse search. As long as the button is kept pressed, music signals are played back faster than normal.
- Keep on pressing this button for more than 0.5 seconds when the pause mode is engaged, you can quickly reverse the pickup to a desired position, three times faster compared to manual reverse search during playback. During this time, no sound is heard.

❿ Automatic / Manual Search Forward Button (▶▶ / ▶▶|)
- Press this button to move the pickup forward to the beginning of the next track. Press again to move ahead to other tracks.
- By pressing the button a number of times, the pickup will advance the corresponding number of tracks.
- Keep on pressing this button for more than 0.5 seconds during playback for fast forward search. As long as the button is kept pressed, music signals are played back faster than normal.
- Keep on pressing this button for more than 0.5 seconds when the pause mode is engaged, you can quickly forward the pickup to a desired position, three times faster compared to manual forward search during playback. During this time, no sound is heard.

⓫ Repeat Button (REPEAT)
- Press this button for repeated playback. The [REPEAT] indicator appears on the display. The following three types of repeat modes are available:
- When pressed once, the [REPEAT] and [1] indicators light and the track currently playing is repeated
- When pressed again, the [REPEAT] and [1 DISC] indicators light and all the tracks on the disc currently playing are repeated.
- When pressed again, the [REPEAT] and [ALL DISC] indicators light and all the discs currently set on the tray are repeated.
- When pressed again, the [REPEAT] and [ALL DISC] indicators turn off and the repeat mode is cancelled.
  The repeat function can also be used during programmed and random playback, but in this case only the all repeat ([ALL DISC] indicator) modes are available.
  (Refer to Page 11 item ⓭)

⓬ Random Button (RANDOM)
- Press this button to begin random play.
- Pressing this button during stop, and press play button play to full automatic random play.
- Pressing this button during playing of a program starts random play of the tracks in the program
  (See page 11, item ⓮)

⓭ Display Window
- The Disc No., Track No., playing time and other information are displayed in the display window.

⓮ Remote Control Receptor (REMOTE SENSOR)
- This receptor receives infrared signals from the wireless remote control unit.
- Aim the wireless remote control unit at this receptor window when operating it.

⓯ Headphone Jack (PHONES)
- Insert the jack of the headphones when desiring to listen to a disc privately. (Headphones are sold separately.)

⓰ Output Terminal
- Connect the connection cords from these terminals to the amplifier's input terminals. (See page 8 for connections.)

Note:
- Do not stop the carousel by hand when it is turning. If this is done, the microprocessor erroneously determines the disc number and the disc can be damaged.

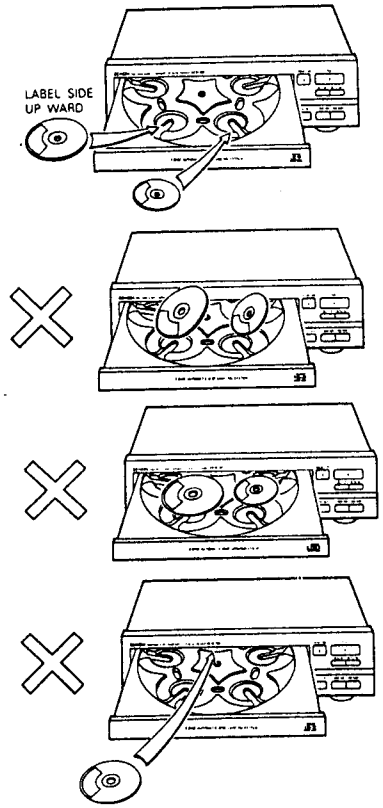
OPENING AND CLOSING THE DRAWER AND LOADING A DISC

Opening and closing the drawer (This operation only works while the power is on.)

1. Press the power switch (POWER) to turn on the power.
2. Press the open / close button (≜ OPEN/CLOSE)

How to load a disc

- Make sure the drawer is completely open.
- Hold the disc by the edges and place it on the disc tray. (Do not touch the signal surface, i.e., the glossy side.)
- Set the disc properly in the tray according to its size.
  Set 8cm discs in the center hole.
  Set 12cm discs in the outer hole.
- When the drawer is opened during the stop mode, discs can be loaded in the disc 1 to disc 4 trays. If the DISC SKIP button is pressed, the carousel turns and a disc can be loaded in the disc 5 tray.
  When the drawer is opened during the play mode, it is possible to load and unload discs in all of the disc trays other than the one whose disc is currently playing. In this case, the DISC SKIP button will not operate.
- Press the open/close button (≜ OPEN/CLOSE) to close the drawer.



Caution:

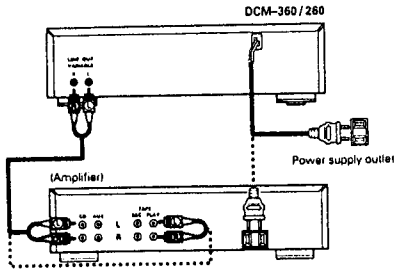
- The player will not operate properly and the disc may even be damaged if it is not set correctly.
- If your finger should get caught in the drawer when it closes, press the open/close button (≜ OPEN/CLOSE).
- Do not place any foreign objects on the disc tray, and do not place more than one disc on the tray at a time. Otherwise malfunction may occur.
- Do not push in the disc tray manually when the power is off as this may cause malfunction and damage the CD player.
- Do not touch the carousel while it is turning. Also, do not turn the carousel by hand when it is stopped. Doing so could damage it.

- Do not insert disc where indicated by arrow.
  This could damage the internal mechanism in the unit.

CONNECTIONS

Connecting the Output Terminal

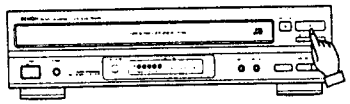
- Connect one end of the connection cord supplied with the CD Player to the output terminals, left (L) and right (R) of the CD Player, and the other end to the CD, AUX or TAPE PLAY input terminals, left (L) and right (R), of the amplifier.



NORMAL PLAY

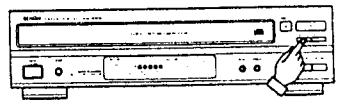
Follow the steps below to get an understanding of the disc play procedure.

(1) Starting Playback



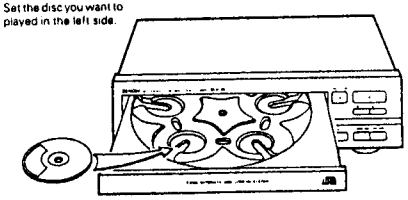
1. Turn the power switch on and press the open/close (≜ OPEN / CLOSE) button to open the drawer.
2. Set the disc to be played in the tray on left side.
3. Press the play button (▶).
4. The drawer closes and the disc just loaded is played.
5. The disc number, track number and elapsed time, etc., for the disc currently playing appear on the display window.
6. If the open/close (≜ OPEN/CLOSE) button is pressed while a disc is playing, playback continues, but the drawer opens and four discs can be replaced.
   Press the open/close (≜ OPEN/CLOSE) button again to close the drawer.

(2) Stopping Playback



1. Press the stop button (■) to stop playback.
2. To replace discs, press the open / close (≜ OPEN/CLOSE) button. The disc which was playing switches over to the left side and the drawer opens.

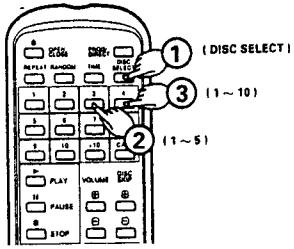
- Set the disc you want to played in the left side.



OTHER PLAY METHODS

In addition to normal play, the following methods can be used when playing a disc.

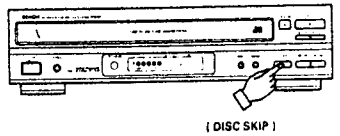
❶ To Play the Desired Disc and Desired Track ..... **Direct Selection** (Remote control only)



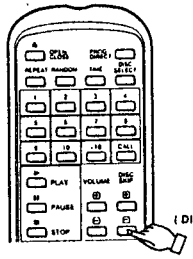
1. Press the DISC SELECT button.
2. Use the number buttons (1 to 5) to select the number of the disc to be played.
3. Next, use the number buttons (1 to 10 and +10) to select the number of the track to be played.

- For example, to play the 4th track on the 3rd disc:
  Press [DISC SELECT], [3] and [4].
  To play the 12th track on the 5th disc:
  Press [DISC SELECT], [5], [+10] and [2].
  Playback begins from the number of the disc and track selected.

❷ To Move to the Next Disc During Playback ..... **Disc Skip**



1. Press the disc skip button. The carousel in the drawer turns and the disc on the next tray is played.
   For example, if disc number 3 was playing, the disc switches to disc number 4, and if disc number 5 was playing, the disc switches to disc number 1.
2. In addition, when the Disc Skip – button on the remote control unit is pressed, the carousel turns in the opposite direction and the previous disc is played.

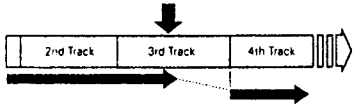


❸ To Move to the Next Track during Play ..... **Automatic Search**

Press the Automatic/Manual search forward button (▶▶ / ▶▶|) for less than 0.5 seconds during playback.

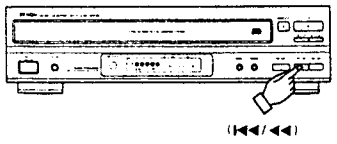
- The pickup will advance to the beginning of the next track and playback will continue. Pressing the button several times will forward the pickup the corresponding number tracks.

Press the ▶▶ / ▶▶| button



- During Random or Program operation, player moves to the beginning of the next random or program track selection.

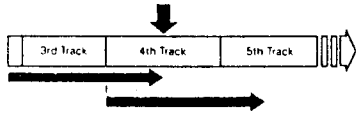
❹ To return to the beginning of the track now being played ..... **Automatic Search**



Press the Automatic/Manual search reverse button (|◀◀ / ◀◀) for less than 0.5 seconds during playback.

- The pickup will return to the beginning of the current track and playback will continue. Pressing the button several times will return the pickup the corresponding number tracks.

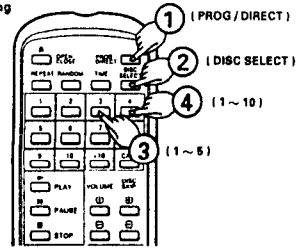
Press the |◀◀ / ◀◀ button



❺ To Play the Desired Discs and the Desired Tracks in the Desired Order ..... **Program Selection** **(Remote control only)**

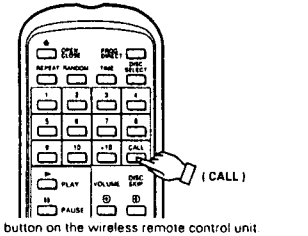
- You can play certain tracks on the loaded discs in any order.
- Tracks on a disc not loaded can also be programmed, but if you try to play that disc, the microprocessor detects that it is not loaded and the following disc is played automatically.
- Up to 20 tracks can be set in a program.
- A program can be made for a single entire disc.

(1) Programming



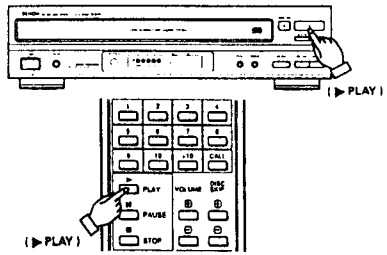
- Press the PROG/DIRECT button. The PROGRAM indicator lights. Use the DISC SELECT, number and +10 buttons to select the disc to be programmed.
  For example, to program the 3rd track on the 2nd disc and the 12 track on the 5th disc, press PROG/DIRECT, DISC SELECT, 2, 3, DISC SELECT, 5, +10 and 2.
  If all the tracks are being selected from the same disc, all the tracks on a particular disc can be played, such as from the 1st track of the 3rd disc, all tracks of the 5th disc and the 5th track of the 5th disc. In this case, press PROG/DIRECT, DISC SELECT, 3, 1, DISC SELECT, 5, DISC SELECT, 5 and 5.

(2) To Check the Programmed Tracks



- Press the call button on the wireless remote control unit.
  The contents of the program are displayed in order one item at a time each time the Call button is pressed.

(3) To Play a Program



- Press the Play (▶ PLAY) button to play the programmed selections in the order in which they were programmed.

(4) To clear the entire program

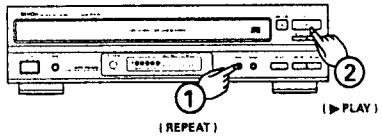
- Pressing the PROG/DIRECT button once more erases the entire program. Pressing the open/close (⏏ OPEN/CLOSE) button also erases the contents of a program.
- Pressing the PROG/DIRECT button while a program is being played cancels the program. Play will then be continuous to the end of the disc currently being played, after which the player will stop automatically.

Cautions

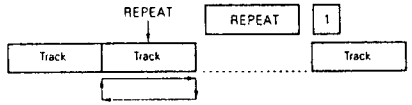
- If a program is run during playing of a track or from the Pause state, the track which is currently being played becomes the 1st track in the program.
- Additional tracks can be added to the program, but the player will not display the number of tracks in the program or the playing time.
- Direct selection cannot be done while a program is being played. Inputting the track number of a desired track with the Track Number buttons adds the input track to the end of the program.
- When programming, do not program a track number which is not recorded on the disc. If such a number is programmed by mistake, the player ignore the program.

❻ To Repeat Play of All Tracks ..... **Repeat Play**

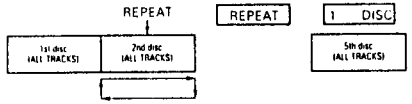
- Press the Repeat (REPEAT) button. The REPEAT indicator will light up.
- Steps ① and ② can be done in any order, with the same results.



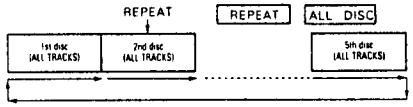
- When the repeat button is pressed once, the REPEAT and 1 indicators light. In this mode, the track currently playing is repeated.



- If the repeat button is pressed again, the REPEAT and 1 DISC indicators light, and the disc currently playing is repeated.



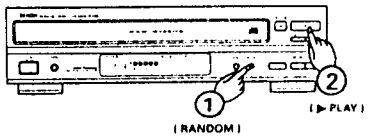
- If the repeat button is pressed again, the REPEAT and ALL DISC indicators light, and all the discs currently loaded are repeated.



- Pressing the Repeat (REPEAT) button during play will also cause the player to repeat play (of all tracks).
- To cancel repeat play, press the Repeat (REPEAT) button once more.
- Pressing the Repeat (REPEAT) button while a program is being played will cause the tracks in the program to be played again in order.
- Pressing the Repeat (REPEAT) button during Random play will cause the tracks to be played again at random.

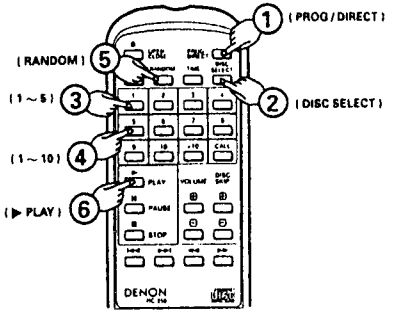
❼ Letting the Player Select the Order of Play ..... **Random Play**

(1) Full Random Play



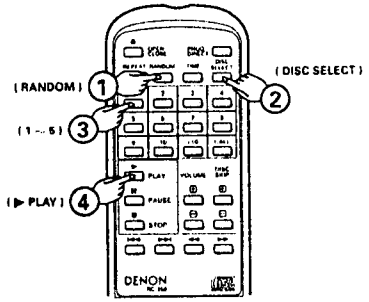
- Press the Random button, then press the Play button. The microcomputer will then start play of the tracks on the 5th disc at random.

(2) Program Random Play **(Remote control only)**



- After pressing the PROG/DIRECT button and inputting a program (See item ❻ on page 10), press the Random button, then the Play button. The microcomputer will then select tracks from the program at random and play them.

(3) Disc Sequential Random Play **(Remote control only)**



- Press the RANDOM button and specify the disc numbers (1 to 5) with the DISC SELECT button and the number buttons. A press of the PLAY (▶ PLAY) button will result in the player randomly selecting and playing tracks on the disc in the order of specified discs. Up to 5 discs can be selected, and the same disc can be selected two or more times. Disc sequential random play is cancelled when play ends.

(4) To Cancel Random Play

- Pressing the Random button once more cancels the Random function. Play will then proceed from the track currently being played to the end of the last track on the disc, then stop.
  Pressing the open/close (≜ OPEN/CLOSE) button also cancels the Random function.

Cautions

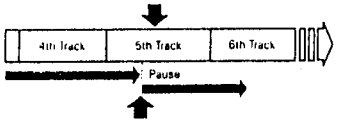
- Pressing the Random button during normal play starts full random play.
- Pressing the Random button during Program play starts random play of the tracks in the program, including the tracks which have already been played.
- During random play, the player may display the number of disc which is not loaded in the tray. In such a case, the player will read the disc information, then reset automatically to correct. This is not a malfunction.

❽ To Stop Play Temporarily ..... **Pause**

(II PAUSE)

- Pressing the Pause button during play stops play at that point. Pressing the Pause button once more starts play again from the same point.

1. Press the Pause (II PAUSE) button.

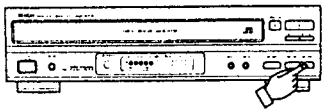


2. Press the Play (▶ PLAY) button or the Pause (II PAUSE) button.
   Press the Play (▶ PLAY) button or the Pause (II PAUSE) button to start play.

❾ Audible quick search ..... **Manual Search**

- Using this function, you can cue to a desired point within a track, either in the forward or reverse direction.
- Release the automatic/manual search button (|◀◀ / ◀◀ or ▶▶ / ▶▶|) when the desired point has been reached. Normal playback then continues.

(1) Manual Search Forward

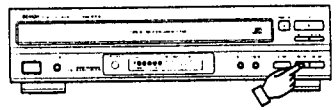


(▶▶ / ▶▶|)

1. Keep on pressing the automatic/manual search forward button (▶▶ / ▶▶|) for more than 0.5 seconds during playback. Playback of the track is sped up.

- As a reference, the current track number and elapsed playback time within the track are displayed.
- Manual search forward is approximately three times faster when engaged during the pause state compared to playback. In this case, no sound is heard however.
- If the automatic/manual search forward button (▶▶ / ▶▶|) is kept pressed after the end of the final track on the disc is reached, (⟩⟩) is displayed and manual search stops. To return to another point, press the automatic / manual search reverse button (|◀◀ / ◀◀) until (⟩⟩) disappears.

(2) Manual Search in Reverse



(|◀◀ / ◀◀)

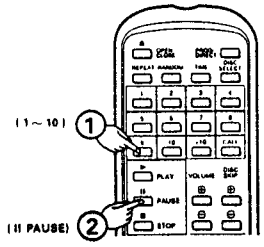
1. Keep on pressing the automatic/manual search reverse button (|◀◀ / ◀◀) for more than 0.5 seconds during playback. Reverse playback of the track is sped up.

- As a reference, the current track number and elapsed playback time within the track are displayed.
- Manual search in reverse is approximately three times faster when engaged during the pause state compared to playback. In this case, no sound is heard however.
- If the automatic/manual search reverse button (|◀◀ / ◀◀) is kept pressed after the beginning of the first track on the disc is reached, (⟨⟨) is displayed and manual search stops. To return to another point, press the automatic/manual search forward button (▶▶ / ▶▶|) until (⟨⟨) disappears.

❿ To Cue and Stop Play ..... **Pause**
(Remote control only)

(1) Cuing by Direct Selection

- Cuing by direct selection, then entering the Pause state, is convenient for practicing vocals with background music.



1. Press the Track Number buttons to set the number of the desired track.
2. Press the Pause (II PAUSE) button.

- To start play, press the Play (▶ PLAY) button or the Pause (II PAUSE) button.

(2) Cueing by Program Selection

- After setting the desired track selections in a program, press the Pause (II PAUSE) button. The player will advance to the beginning of the 1st track in program memory and wait in the Pause state.

INSTALLATION PRECAUTIONS

The CD player uses a microcomputer for controlling internal electronic circuits. In the event that the player is used while a near-by tuner or TV is turned on, although unlikely, interference could occur either in the sound from the tuner or the picture of the TV. To avoid this, please take the following precautions.

- Keep the CD player as far away from the tuner or TV set as possible.
- Keep the power cable and connecting cable of the CD player separate from the antenna wires of the tuner and TV.
- Interference is particular likely to occur when an indoor antenna or a 300 Ω/ohms feeder cable is used. Thus, use of an outdoor antenna and 75 Ω/ohms coaxial cable is strongly recommended.

300 Ω/ohms feeder cable

75 Ω/ohms coaxial cable

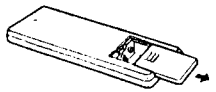
PLAY USING THE REMOTE CONTROL UNIT

The DCM-360/260 CD Player can be controlled from across the room using the accessory Remote Control Unit.

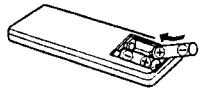
(1) Inserting the Dry Battery

1. Remove the cover on the back of the remote control unit.

RC-258



2. Insert two R6P (AA size) batteries in the RC-258, following the indications on the battery compartment.



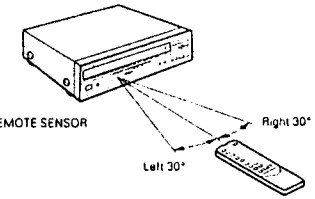
3. Replace the cover on the back of the remote control unit.

Cautions Concerning Dry Batteries

- Use R6P batteries in the RC-258 remote control unit.
- Depending on the frequency of use, the dry batteries should be replaced approximately once per year.
- If the remote control unit fails to control the CD Player, even before a year has passed, replace the dry batteries with new ones.
- Be sure to follow polarity indications inside the case of the remote control unit, inserting the + end and − end of each battery in the directions indicated.
- Batteries may become damaged or leak under the following conditions.
  - Using new batteries together with old ones.
  - Using different types of batteries together.
  - Do not short batteries, take them apart, subject them to heat or throw them into a fire.
- When the remote control unit is not used for a long period of time, remove the dry batteries.
- If fluid leaks from the batteries, be sure to wipe up all battery fluid inside the battery case and replace the batteries with new ones.

(2) Using the Remote Control Unit

- Aim the remote control unit toward the light receptor in the front of the CD Player, as shown in the drawing below.
- The remote control unit can be used up to a distance of 8 meters in a straight line from the CD Player. However, this distance will be shortened if there is some obstruction between the remote control unit and the light receptor, or if the beam of light is slanted.



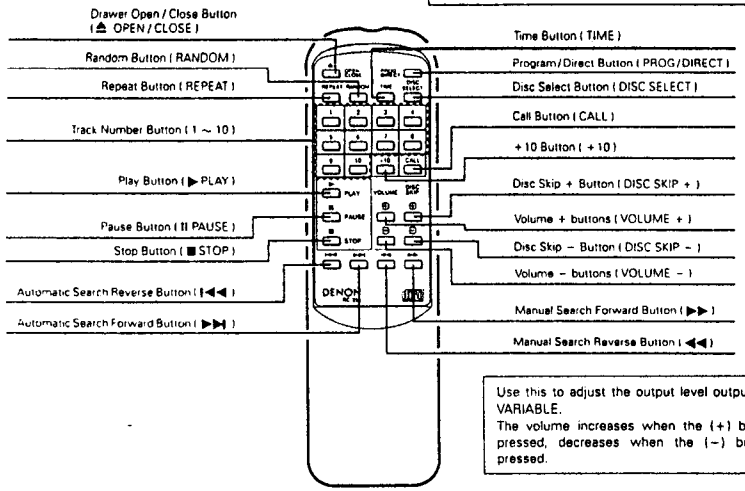
- The remote control unit has the same functions as the main unit, but the following operations cannot be done.
  - Switching the power on and off.

Cautions During Use

- Do not press the operating buttons on the main unit and the remote control unit at the same time. This could cause a malfunction.
- Operation of the remote control unit will be hindered if a strong light from the sun or a light fixture is shining on the REMOTE SENSOR or if there is an obstruction between the remote control unit and the CD player unit.

REMOTE CONTROL UNIT RC-258

Setting to the Program Mode
- For program search, press the PROG/DIRECT button then the track number buttons (1 through 10 and +10).
- The remote control unit is normally set to the direct mode.


Drawer Open / Close Button (▲ OPEN / CLOSE)
Random Button (RANDOM)
Repeat Button (REPEAT)
Track Number Button (1 ~ 10)
Play Button (▶ PLAY)
Pause Button (II PAUSE)
Stop Button (■ STOP)
Automatic Search Reverse Button (|◀◀)
Automatic Search Forward Button (▶▶|)
Time Button (TIME)
Program/Direct Button (PROG/DIRECT)
Disc Select Button (DISC SELECT)
Call Button (CALL)
+10 Button (+10)
Disc Skip + Button (DISC SKIP +)
Volume + buttons (VOLUME +)
Disc Skip – Button (DISC SKIP –)
Volume – buttons (VOLUME –)
Manual Search Forward Button (▶▶)
Manual Search Reverse Button (◀◀)

Use this to adjust the output level output of the VARIABLE.
The volume increases when the (+) button is pressed, decreases when the (–) button is pressed.

- **Disc Selection**
  Use the DISC SELECT and number buttons to select the number of the disc to be played.
  "– –" appears on the disc number section of the display for 2 seconds when the DISC SELECT button is pressed. Press the number button corresponding to the number of the disc to be played while "– –" is displayed to select the disc number.
  Track numbers are selected if the number buttons are pressed while "– –" is not displayed on the disc number section of the display.
- **Direct Selection**
  Normally, direct search is possible simply by pressing the desired number buttons.
- **Program Selection (During playback, the track which is currently playing is programmed as the 1st track.)**
  Press the PROG/DIRECT button, then press the number buttons.
  For example, to program tracks number 3, 11, and 5, press PROG /
  DIRECT → 3 → +10 and 1 → 5.
  To cancel the program, press the PROG/DIRECT button.
- **Inputting the Track Numbers**
  For track numbers below 10, simply press the corresponding button. For track numbers of 11 and greater, press the +10 then the number buttons.
  For example, for track number 22 press +10 twice then 2.
- **Volume**
  The volume control on the unit will operate when the volume buttons are pressed. The volume can be checked by looking at the position of the control.
- **Skipping Discs**
  The Disc Skip button (DISC SKIP +, –) will not function in the random and program modes.
  During disc sequential random playback, when the Disc Skip + button is pressed, the following disc is played in random order.
- **Volume**
  The output level of the VARIABLE output terminal can be changed.
  When the volume button is pressed, " – " appears in the TIME M (minutes) section of the display window and the level appears in the S (seconds) section. The volume can be changed between a maximum of " – 00" and a minimum of " – 12" in 12 steps, by approximately 1.5 dB per step.

- The Time indicator indicates the amount of elapsed time for the track currently being played, the amount of time remaining for the current track and the amount of time remaining for all tracks yet to be played.
  Normally, the amount of elapsed time for the current track is displayed. Pressing this button once causes the [SINGLE] indicator to light up, displaying the amount of time remaining for the current track. Pressing the button once more turns the [SINGLE] indicator off and causes the [TOTAL] indicator to light up, displaying the time remaining for all tracks yet to be played on the disc. Pressing the button once again turns the [TOTAL] indicator off and causes the indicator to display the elapsed time for the current track.
- During playback, the total remaining time is the remaining time for the disc. For programmed playback, the remaining time for the program is only displayed when the programmed tracks are all on the same disc.
  In the case of 21st and subsequent tracks, the time remaining for one track is displayed "----". When 21st and subsequent tracks is programmed, the time remaining for all tracks is displayed "----".
  "----" is displayed when tracks on more than one disc are programmed.

COMPACT DISCS

1. Cautions in Handling Compact Discs
- Do not get fingerprints, oil, dirt or other substances on the compact disc. If the disc becomes dirty, wipe it off with a dry, soft cloth. DENON AMC-20/21 CD Cleaner is recommended.
- Do not clean compact discs with benzene, paint thinner, water, record spray, anti-static agent, silicon cloth or similar substances.
- Take particular care to prevent scratches to the back side of the compact disc when removing it from the case and when inserting it in its case.
- Do not bend compact discs.
- Do not apply to compact discs.
- Do not attempt to enlarge the center hole of the disc.
- Do not write on the label (printed) side of the disc with a ball point pen or pencil.
- Bringing a CD into a warm room from a cold place could cause moisture to condense on the disc surface. Do not attempt to dry the disc with a hair dryer, etc.

2. Storage of Compact Discs
- After play, be sure to remove the disc from the player.
- To prevent dust, scratches, deformation, etc., be sure to store compact discs in their case.
- Do not store compact discs in the following locations.
  1. Places where direct sunlight strikes for long periods of time.
  2. Places with a high humidity or a lot of dust.
  3. Places reached by heat from a heater or similar appliance.

TROUBLE? CHECK THE PLAYER TO FIND WHAT'S WRONG

Even when it appears that there is trouble, check the following points carefully.

The drawer won't open / close when the Open / Close button is pressed.
- Is the Power switch on?

After a disc is loaded (0 00 00_M 00_S) is displayed in the display window.
- Is the disc loaded correctly? ..... See page 8, 9, 15.

Play does not begin when the Play button is pressed.
- Is the disc dirty or scratched? ..... See page 15.

There is no sound, or the sound is distorted.
- Is the output cord connected correctly to the amplifier? ..... See page 8.
- Does the sound return to normal when the amplifier's knobs are adjusted or the proper input device is selected?

The player won't go to the place specified in the search.
- Is the disc dirty or scratched? ..... See page 15.

A program cannot be played.
- Is the method used to make a program and run it correct? ..... See page 10.

The player won't operate correctly when the remote control unit is used.
- Are the dry batteries in the remote control unit dead? ..... See page 13.
- Is the remote control unit located too far from the CD Player unit? ..... See page 13.

SPECIFICATIONS

AUDIO	DCM-360	DCM-260
Number of Channels	2 Channels	
Frequency Characteristics	2 ~ 20,000 Hz	
Dynamic Range	99 dB	98 dB
S N Ratio	108 dB	108 dB
High Frequency Distortion	0.0025% (1kHz)	0.0028%
Separation	98 dB	98 dB
Wow and Flutter	Less than the measuring (±0.001% W. peak)	
Output Voltage	Variable 0.2 ~ 2.0 V	
DISC USED	Audio compact discs are used 12 cm (5 in) and 8 cm (3 in)	
OVERALL		
Power Supply	60 Hz, Voltage is shown on rating label	
Power Consumption	11 W	
External Dimensions	434 (W) × 114 (H) × 398 (D) mm (17-3/32" × 4-17/32" × 15-11/16")	
Weight	5.4 kg (11.9 lbs.)	5.4 kg (11.9 lbs)

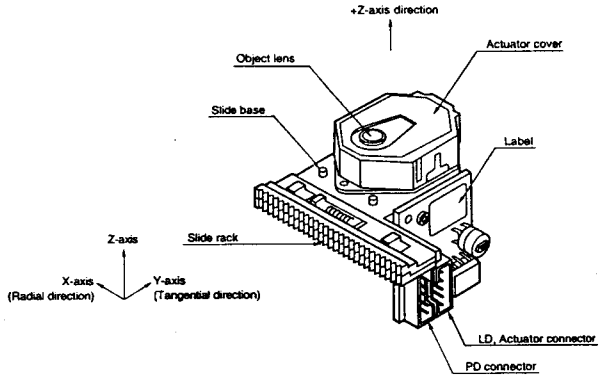
FUNCTIONS AND DISPLAY	
Functions	Five discs can be used. Direct Track Selection, Program Selection, Random Play, etc.
Displays	Disc No., Track No., Time (min., sec.), Play, Pause, Repeat, Random, etc.
Other	Headphone Jack (Level Variable)

REMOTE CONTROL UNIT RC-258	
Remote Control Method	Infrared Pulse system
Power Supply	3 V DC Two R6P (standard SIZE AA)
External Dimensions	50 (W) × 175 (H) × 18 (D) mm (1-31/32" × 6-57/64" × 45/64")
Weight	100g (approx. 3 oz) (Includes batteries)

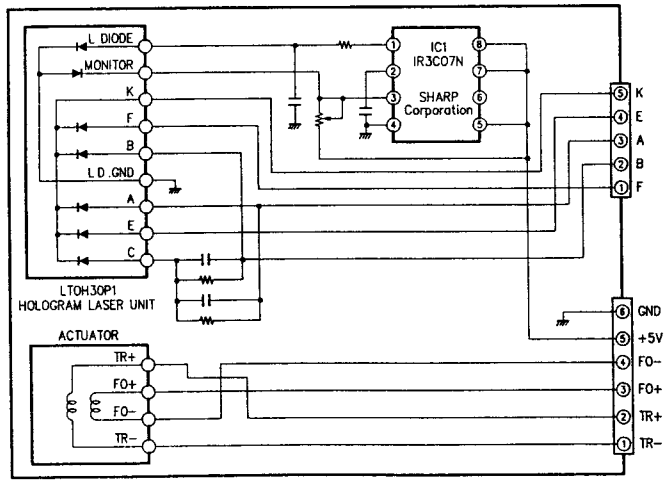
* Design and specifications are subject to change without notice in the course of product improvement.

NOTE FOR HANDLING OF LASER PICK-UP

Description of the Components



Wiring Diagram



Connector Order

TR−	①	⑤	K
TR+	②	④	E
FO+	③	③	A
FO−	④	②	B
+5V	⑤	①	F
GND	⑥		

Connector Mode

MAKER : J.S.T.ELECTRONIC PRODUCTS MFG CO.,LTD.

TYPE :	POST,BASE	B5B-PH-K	B6B-PH-K
	HOUSEING	PHR-5	PHR-6
	CONTACT	SPH-002T-P0.5S	

Caution for Handling the Laser Pick-up

The laser pick-up HPC-IC is assembled and precisely adjusted using a sophisticated manufacturing process in our plant. Do not disassemble or attempt to readjust it. Please keep the following instructions carefully in handling pick-up.

1. Handle with Care

(1) Storage

Do not store the pick-up in dusty, high-temperatured or high-humidity environments.

Please make pick-up faces objective lens upward (pick-up toward +Z axis direction) when storage and transport.

(2) Handling

Please take care for preventing from shock by falling down or careless handling.

2. Laser Diode (LD)

(1) Protect your eyes

The laser beam may damage the human eye, since the intensity of the focused spot may reach 7×10^3 W/cm^2 even if the intensity at the objective lens is 400 µW maximum. As the light beam spreads after focused through the objective lens, it does not effect you in the place as far as more than 30 cms. However, do not look at the laser light beam either through the objective lens directly nor another lens or a mirror.

(2) Poison of As

Since the LD chip contains As (Arsenic), as GaAs + GaAlAs, as known as the poison, although the poison is relatively weak, in comparing with others, e.g.As2O3, AsCl3 etc., and the amount is small, avoid putting the chip in acid or an alkali solution, heating it over 200℃ or putting it into your mouth.

(3) Avoid surge current or electrostatic discharge

The LD may be damaged or deteriorated by its own strong light if a large current is supplied to it, even if only a short time.

Since the semiconductor laser may be damaged easy by electrostatic generating, be careful to avoid the happening during handling pick-up.

To connect working table using aviodable electrostatic mat and chassis of this unit to earth line between high resistor (1MΩ extent).

To connect working human wrist attaching least strap to earth line between high resistor (1MΩ extent).

Be sure that there is no soldering short for avoiding electro-static damage at this laser pick-up.

3. 2 Axis Actuator

(1) Actuator

The performance of the actuator may be effected if magnetic material is located nearby, since the actuator has a strong magnetic circuit. Do not permit dust to enter through the clearance of the cover.

(2) Cleaning the lens

It may change the specifications by attaching dust or ash or the objective lens. Clean the lens with a cleaning pape dampened with a little isopropil alcohol, not pressing lens with so much strength by the cleaning paper.

4. Metal Bearing

As the metal bearing of Cu-compound sintered alloy is impreg nated with FROIL946P, never fail to supply the bushing with the same lubricant at the time of replacing the pick-up.

5. Handling

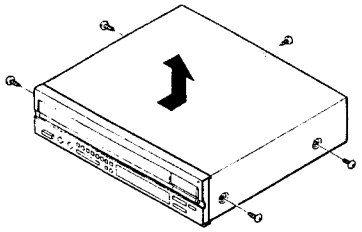
Please handle the laser pick-up with holding the side base (rosin molded part).

When either a part of human body or some other things may happen to touch directly with the circuit part of P.W.Board, i may cause deterioration, take careful attention in handling this base.

DISASSEMBLY

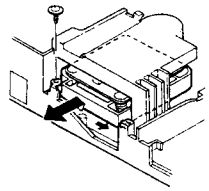
● **Top Cover**

Remove 4 screws from both sides and 1 screw from Rear Panel and slide Top Cover slightly background (approx. 5mm) and pull it up.



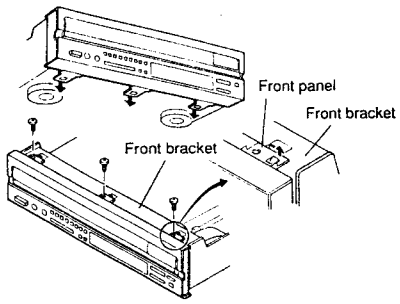
● **PU Mechanism**

After removing rear panel, remove 1 screw.



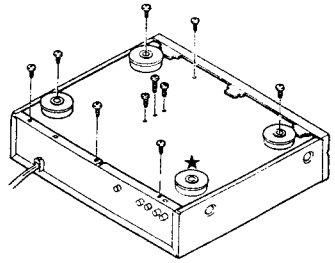
● **Front Panel**

1. Remove 3 hooks from bottom surface of unit.
2. Remove screws fixing front bracket and detach subpanel from hook of the front bracket.



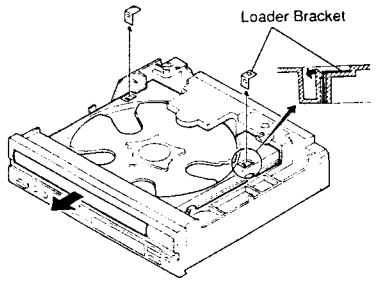
● **Bottom Cover**

1. Remove 3 screws fixing foot and 4 screw fixing bottom cover and 3 screws fixing rear panel, 10 in total.
   (These screws are P-tight type)
   Do not remove screws marked with ★.
   (This screw is P-tight type)

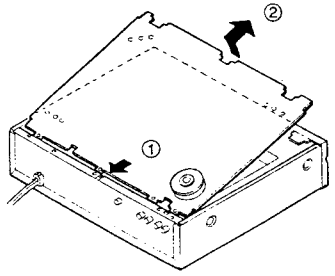


● **Loader Frame Ass'y**

1. Remove hooks of loader frame, and pull out 2 loader brackets from right and left sides.
2. Pull the loader frame assembly frontward.



2. ① Slide the bottom cover backward (approx. 5mm) and when it touches the rear panel in end, ② lift up front portion of the bottom cover and pull it.



CONFIRMING THE SERVO

A microcomputer adopted to this unit has the service programs so as to perform servo adjustment more easily with the operating buttons.
This unit which adopted digital servo methode ability to automatically adjust Focus Gain, Focus Balance, Focus Offset, Tracking Gain, Tracking Balance, and Tracking Offset.

1. Actuating the Service Program

(1) Open the disc holder, then turn power switch OFF.
(2) While shorting TP (J224) to TP (J225), turn power switch ON. (DISC displays number 0 .)
(3) Press REPEAT button. (Performs roulette initialize operation.)
(4) Insert test disc CA-1094 or CA-1094A to DISC 1.
(5) Press ⏏ OPEN/CLOSE button. (DISC displays number 1 .)

Note: The operating button do not function when service program actuates.

2. Operating Function at Service Program Actuation

Button Operation	Function	Description
⏏ OPEN/CLOSE	Opens or closes the disc holder.	● Opens or closes when disc is stopped. ● Operates other keys after open or close.
■ STOP	Stops system function.	● DISC displays number 1 . ● Press when adjustment completed or want to correct.
▶ PLAY	Operates Focus servo and disc turns.	● DISC displays number 2 when operation is completed.
⏮	Performs Focus servo, Tracking servo, Slide servo, Spindle servo and various automatically adjustment.	● Performs Tracking servo and Slide servo when pressing PLAY button. ● DISC displays number 3 when operation is completed. ● When unusualness is existed, TRACK displays number (error message). But E9 , E- is not error message.
⏭	Displays automatically adjustment effect of FG, FEXP, FBAL, FOFS, TG, TEXP, TBAL and TOFS.	● Press ■ button when ⏮ button operation is completed. When pressing ⏭ button every once, displays automatically adjusting value about FG, FEXP, FBAL, FOFS, TG, TEXP, TBAL, and TOFS in the sequence. Displays following indication: FG: TRACK 00, TIME XX.XX FEXP: TRACK 01, TIME XX.XX FBAL: TRACK 02, TIME XX.XX FOFS: TRACK 03, TIME XX.XX TG: TRACK 04, TIME XX.XX TEXP: TRACK 05, TIME XX.XX TBAL: TRACK 06, TIME XX.XX TOFS: TRACK 07, TIME XX.XX
Other Buttons	No normal operation.	● Do not operate other button except above. ● When an error occurs, immediately turn power switch OFF.

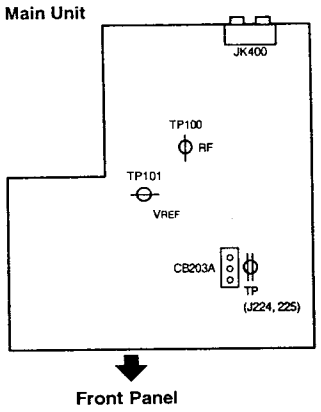
Note: Do not use remote control during service program operation.

3. Confirming Method

(1) Required Measuring Equipments for adjustment

1. Dual-mode oscilloscope
2. Adjustment disc "Yasuko Tomita" (CA-1094 or CA-1094A)

(2) Adjustment location



(3) Confirming procedure

1. Actuate service program.
2. Load adjustment disc "Yasuko Tomita" (CA-1094 or CA-1094A).
3. When pressing ⏮ button, confirm error message (refer to table 1).
4. Push ■ button.
5. When pressing ⏭ button every once, confirm automatically adjusting value about FG, FEXP, FBAL, FOFS, TG, TEXP, TBAL and TOFS (refer to table 2 limit).
6. When service program is completed, return to normal mode (turn power switch ON).
7. Confirm RF level.

(4) Error message confirmation

1. When pressing ⏮ button, DISC displays number 3.
2. Confirm error message with TRACK number indication.

DISC TRACK (a) 3 E-. DISC TRACK (b) 3 E9. DISC TRACK (c) 3 no display

Defect is existting except above indication.

Error Message Table (table 1)

Indication		Contents
DISC	TRACK	
3	E1	Unable to adjust tracking offset
3	E2	Unable to adjust focus offset
3	E3	Unable to adjust focus gross gain
3	E4	Unable to enter focus (include spindle)
3	E5	Unable to enter tracking
3	E6	Unable to adjust tracking gross gain
3	E7	Unable to adjust tracking balance
3	E8	Unable to adjust focus balance

(5) Confirm automatically adjustment value about FG, FEXP, FBAL, FOFS, TG, TEXP, TBAL and TOFS.

(1) Press ⏮ button, DISC displays number 3.
(2) Press ■ button, DISC displays number 1.
(3) Press ⏭ button, displays FG (Focus Gain Tentative) value, confirm the value in table 2 limit.
(4) Press ⏭ button, displays FEXP (Focus gain Exponent) value, confirm the value in table 2 limit.
(5) Press ⏭ button, displays FBAL (Focus balance) value, confirm the value in table 2 limit.
(6) Press ⏭ button, displays FOFS (Focus offset) value, confirm the value in table 2 limit.
(7) Press ⏭ button, displays TG (Tracking Gain Tentative) value, confirm the value in table 2 limit.
(8) Press ⏭ button, displays TEXP (Tracking Gain Exponent) value, confirm the value in table 2 limit.
(9) Press ⏭ button, displays TBAL (Tracking Balance) value, confirm the value in table 2 limit.
(10) Press ⏭ button, displays TOFS (Tracking Offset) value, confirm the value in table 2 limit.

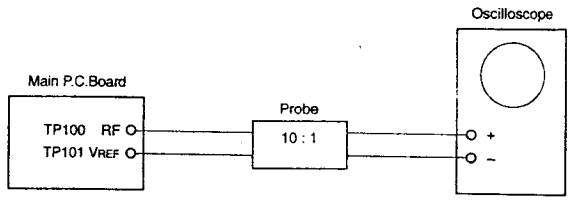
Confirming Table about Digital Servo Adjusting Value (table 2)

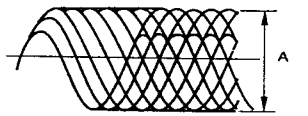
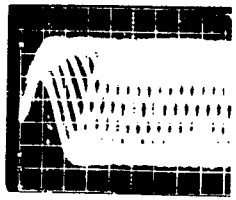
	DISC TRACK	XX_nXX_5	XX_nXX_5	XX_nXX_5	XX_nXX_5
FG	1 00	M90S~2M55S	M45S~2M55S	M22S~2M46S	M11S~1M23S
FEXP	1 01	1M28S at above mention	M64S at above mention	M32S at above mention	M16S at above mention
FBAL	1 02	1M55S~2M55S	M 0S~ 1M00S		
FOFS	1 03	2M20S~2M55S	M 0S~ M35S		
TG	1 04	M88S~2M55S	M44S~2M55S	M22S~1M91S	M11S~M95S
TEXP	1 05	1M28S at above mention	M64S at above mention	M32S at above mention	M16S at above mention
TBAL	1 06	1M25S~2M55S	M 0S~ 1M02S		
TOFS	1 07	2M40S~2M55S	M 0S~ M15S		

It means 240~255.

(6) RF level Confirming

Connection



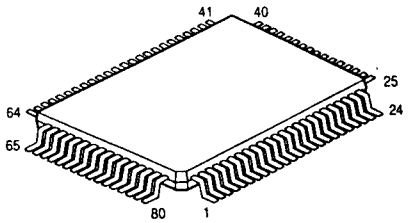
Osciloscope		Check	Step
V	H		
50mv/div or 20mV/div	0.2μs/div or 0.5μs/div	 A=0.28~0.59V	1. Press ▶ button. 2. Check RF level of oscilloscope. 3. Confirm that the waveform is in good shape. (◊ eye pattern in center must be able to discriminate clearly.)
• Set input mode to ALTERNATE or CHOPPER.		 Eye Pattern	

MEMO

SEMICONDUCTORS

●IC's

HD6433723D79F (IC300)



* I/O = In/Out-put use
Act = Active
INI = Initialize
RST = RESET
OP = MASK OPTION

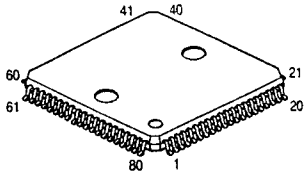
HD6433723D79F Terminal Function

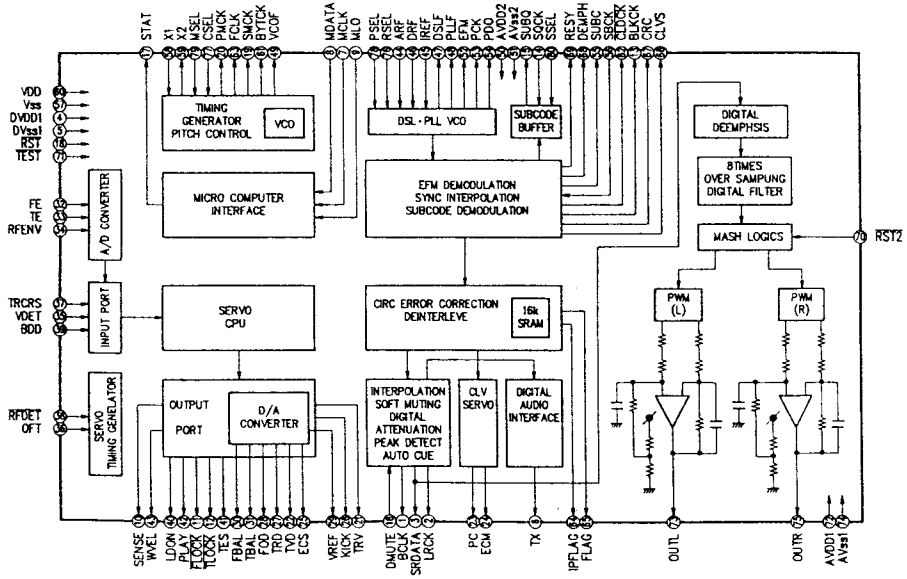
Pin No.	Terminal Name	Symbol	I/O	ACT	INI	RST	OP	Function
1	P0$_4$/AN	K14	I	—	L	HZ	—	Key signal input (A/D), test mode.
2	P0$_5$/AN$_5$	K15	I	—	L	HZ	—	Key signal input (A/D), test mode.
3	P0$_6$/AN$_6$	$\overline{REM}$	I	H	L	HZ	—	Remote control signal input.
4	P0$_7$/AN$_7$	R.SENSE	I	H	L	HZ	—	Rolled sensor signal input.
5	AVss	GND	—	—	—	—	—	GND
6	TEST	TEST	—	—	—	—	—	Not used.
7	X$_2$	X$_2$	—	—	—	—	—	Not used.
8	X$_1$	X$_1$	—	—	—	—	—	Not used.
9	Vss	GND	—	—	—	—	—	GND
10	OSC$_1$	OSC$_1$	I	—	—	—	—	System clock oscillator connecting terminal.
11	OSC$_2$	OSC$_2$	O	—	—	—	—	System clock oscillator connecting terminal.
12	$\overline{RES}$	$\overline{RES}$	I	L	—	—	—	Reset signal input.
13	P1$_0$/$\overline{IRQ_0}$	$\overline{SWOPN}$	I	L	L	—	B	Tray OPEN switch signal input (L: Open).
14	P1$_1$/$\overline{IRQ_1}$	$\overline{SWCLS}$	I	L	L	—	B	Tray CLOSE switch signal input (L: Close).
15	P1$_2$/$\overline{IRQ_2}$	$\overline{SWUP}$	I	L	L	—	B	Traverse UP switch signal input (L: Up).
16	P1$_3$/$\overline{IRQ_3}$	$\overline{SWDWN}$	I	L	L	—	B	Traverse DOWN switch signal input (L: Down).
17	P1$_4$/$\overline{IRQ_4}$	BLKCK	I	H	L	HZ	C	Subcode block clock signal input.
18	P1$_5$/$\overline{IRQ_5}$/TMOE	$\overline{LIMIT}$	I	L	L	—	B	Traverse Limit switch signal input (L: Inner circle).
19	P1$_6$/$\overline{EVENT}$	$\overline{XRST}$	O	L	H	HZ	C	IC reset signal output.
20	P3$_3$/FS$_{27}$	STAT	I	H	L	HZ	D	Status signal input (CRC, CUE, CLVS, TTSTOP, FCLV, SQCK).
21	P3$_2$/FS$_{26}$	DMUTE	O	H	H	HZ	D	Digital mute signal output (H: Mute ON).
22	P3$_1$/FS$_{25}$	$\overline{D.SENS}$	I	L	L	HZ	D	Disc sensor signal input(L:No disc).
23	P3$_0$/FS$_{24}$	$\overline{TLOCK}$	I	L	L	HZ	D	Tracking servo Lead-in signal input (L: Lead-in status).
24	P4$_7$/FS$_{23}$	$\overline{FLOCK}$	I	L	L	HZ	D	Focus servo Lead-in signal input (L: Lead-in status).
25	P4$_6$/FS$_{22}$	SENSE	I		L	HZ	D	Sense signal input (OFT, FESL, NACEND, NAJEND, POSAD, SFG).
26	P4$_5$/FS$_{21}$	DEMPH	I	H	L	HZ	D	Deemphasis deteeting signal input (H: ON).
27	P4$_4$/FS$_{20}$	CRC	I	H	L	HZ	D	Subcode CRC check result signal input (H: OK, L: NG).
28	P4$_3$/FS$_{19}$	CLVS	I		L	HZ	D	Spindle servo phase sync status signal input (H: CLV, L: Rough servo).
29	P4$_2$/FS$_{18}$	$\overline{RFDET}$	I	L	L	HZ	D	RF detecting signal input (L: Detecting).
30	P4$_1$/FS$_{17}$	SELIN	I		L	HZ	D	SM5845AF/PCM1710U selecting signal input (H: PCM1710U, L: SM5845AF).
31	P4$_0$/FS$_{16}$	NC	I		L	HZ	D	Not used.
32	P5$_0$/FS$_{15}$	SEGh	O	H	L	HZ	E	Segment output.
33	P5$_1$/FS$_{14}$	SEGg	O	H	L	HZ	E	Segment output.

Pin No.	Terminal Name	Symbol	I/O	ACT	INI	RST	OP	Function
34	P5$_2$/FS$_{13}$	SEGf	O	H	L	HZ	E	Segment output.
35	P5$_3$/FS$_{12}$	SEGe	O	H	L	HZ	E	Segment output.
36	P5$_4$/FS$_{11}$	SEGd	O	H	L	HZ	E	Segment output.
37	P5$_5$/FS$_{10}$	SEGc	O	H	L	HZ	E	Segment output.
38	P5$_6$/FS$_9$	SEGb	O	H	L	HZ	E	Segment output.
39	P5$_7$/FS$_8$	SEGa	O	H	L	HZ	E	Segment output.
40	P1$_7$/Vdisp	Vdisp	I	—	—	HZ	—	
41	P6$_0$/FD$_0$/FS$_7$	9G	O	H	L	HZ	E	Grid output.
42	P6$_1$/FD$_1$/FS$_6$	8G	O	H	L	HZ	E	Grid output.
43	P6$_2$/FD$_2$/FS$_5$	7G	O	H	L	HZ	E	Grid output.
44	P6$_3$/FD$_3$/FS$_4$	6G	O	H	L	HZ	E	Grid output.
45	P6$_4$/FD$_4$/FS$_3$	5G	O	H	L	HZ	E	Grid output.
46	P6$_5$/FD$_5$/FS$_2$	4G	O	H	L	HZ	E	Grid output.
47	P6$_6$/FD$_4$/FS$_1$	3G	O	H	L	HZ	E	Grid output.
48	P6$_7$/FD$_7$/FS$_0$	2G	O	H	L	HZ	E	Grid output.
49	P7$_0$/FD$_8$	1G	O	H	L	HZ	E	Grid output.
50	P7$_1$/FD$_9$	NC	I	—	L	HZ	D	Not used.
51	P7$_2$/FD$_{10}$	NC	I	—	L	HZ	D	Not used.
52	P7$_3$/FD$_{11}$	A.ADJ	O	H	L	HZ	D	Auto adjusting signal output (H: Auto adjusting).
53	P7$_4$/FD$_{12}$	POWER	O	H	L	HZ	D	Filament power supply control signal output (H: Power ON).
54	P7$_5$/FD$_{13}$	R-SPEED	O	H	L	HZ	D	Roulette brake signal output (H: Brake).
55	P7$_6$/FD$_{14}$	ROULET-R	O	H	L	HZ	D	Roulette right rotation signal output (H: Right rotation).
56	P7$_7$/FD$_{15}$	ROULET-L	O	H	L	HZ	D	Roulette left rotation signal output (H: Left rotation).
57	Vcc	Vcc	—	—	—	—	—	
58	P8$_0$	OPEN	O	H	L	HZ	C	Tray OPEN signal output (H: Open).
59	P8$_1$	CLOSE	O	H	L	HZ	C	Tray CLOSE signal output (H: Close).
60	P8$_2$	PBUP	O	H	L	HZ	C	Traverse UP signal output (H: Up).
61	P8$_3$	PBDWN	O	H	L	HZ	C	Traverse DOWN signal output (H: Down).
62	P8$_4$	AMUTE	O	H	H	HZ	C	Analog mute signal output (H: Mute ON).
63	P8$_5$	NC	I	—	L	HZ	C	Not used.
64	P8$_6$	MCK	O	H	L	HZ	C	Digital audio signal LSI clock output.
65	P8$_7$	MDT	O	H	L	HZ	C	Digital audio signal LSI data output.
66	P9$_0$/PWM	$\overline{MLEN}$	O	L	H	HZ	C	Digital audio signal LSI data latch output.
67	P9$_1$/$\overline{SCK_1}$	MCLK	O	H	L	HZ	C	DSP command clock output.
68	P9$_2$/SI$_1$	$\overline{MLD}$	O	L	H	HZ	C	DSP command latch output.
69	P9$_3$/SO$_1$	MDATA	O	H	L	HZ	C	DSP command data output.
70	P9$_4$/$\overline{SCK_2}$	$\overline{SQCK}$	O	L	H	HZ	C	Subcode lead-in clock output.
71	P9$_5$/SI$_2$/$\overline{CS}$	SUBQ	I	H	L	HZ	C	Subcode data input.
72	P9$_6$/SO$_2$	NC	I	—	L	HZ	C	Not used.
73	P9$_7$/UD	MAINS	O	H	H	HZ	C	Alpha test output 1 (H: Low order data output, L: Low order data non-output).
74	PA$_0$	$\overline{SHIFTN}$	O	L	L	HZ	C	Alpha test output 2 (H: usually output, L: 8 bit shift).
75	PA$_1$	ADEEM	O	H	L	HZ	C	Alpha process operating mode selection output (H: DF data priority, L: fs data priority).
76	AVcc	Vcc	—	—	—	—	—	
77	P0$_0$/AN$_0$	K10	I	—	L	HZ	—	Key signal input (A/D).
78	P0$_1$/AN$_1$	K11	I	—	L	HZ	—	Key signal input (A/D).
79	P0$_2$/AN$_2$	K12	I	—	L	HZ	—	Key signal input (A/D).
80	P0$_3$/AN$_3$	K13	I		L	HZ	—	Key signal input (A/D), test mode.

Notes: I/O = In/Out-put use, ACT = Active, INI = Initialize, RST = RESET, OP = MASK OPTION

MN662720RB (IC102)



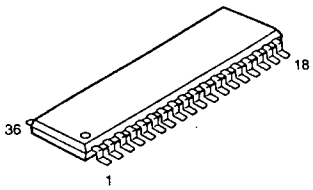


MN662720RB Terminal Function

Pin No.	Symbol	I/O	Function
1	BCLK	O	Bit clock output for SRDATA.
2	LRCK	O	L,R discriminating signal output.
3	SRDATA	O	Serial data output.
4	DVDD1	I	Power supply for digital circuit.
5	DVSS1	I	Ground for digital circuit.
6	TX	O	Digital audio interface signal output.
7	MCLK	I	Microcomputer command clock signal input (Latch data with leading edge).
8	MDATA	I	Microcomputer command data input.
9	MLD	I	Microcomputer command load signal input. ("L": load).
10	SENSE	O	Sense signal output (OFT, FESL, NACEND, NAJEND, POSAD and SFG).
11	$\overline{FLOCK}$	O	Focus servo Lead-in signal ("L": Lead-in state).
12	$\overline{TLOCK}$	O	Tracking servo Lead-in signal ("L": Lead-in state).
13	BLKCK	O	Subcode block clock signal (fBLKCK=75Hz).
14	SQCK	I	External clock input for subcode Q register.
15	SUBQ	O	Subcode Q code output.
16	DMUTE	I	Muting input ("H": Mute).
17	STAT	O	Status signal (CRC, CUE, CLVS, TTSTOP, FCLV and SQOK).
18	$\overline{RST}$	I	Reset input ("L": Reset).
19	SMCK	O	8.4672MHz clock signal output at MSEL="H". 4.2336MHz clock signal output at MSEL="L".
20	PMCK	O	88.2kHz clock signal output.
21	TRV	O	Traverse forced feed output.
22	TVD	O	Traverse drive output.
23	PC	O	Spindle motor ON signal ("L": ON).
24	ECM	O	Spindle motor drive signal (Forced mode output). 3-state.
25	ECS	O	Spindle motor drive signal (Servo error signal output).
26	KICK	O	Kick pulse output.
27	TRD	O	Tracking drive output.
28	FOD	O	Focus drive output.
29	VREF	I	Reference voltage for DA output portion (TVD,ECS,TRD,FOD,FBAL and TBAL).
30	FBAL	O	Focus balance adjusting output.
31	TBAL	O	Tracking balance adjusting output.
32	FE	I	Focus error signal input (Analog input).
33	TE	I	Tracking error signal input (Analog input).
34	RFENV	I	RF envelope signal input (Analog input).
35	VDET	I	Oscillating detection signal input ("H": detecting).
36	OFT	I	Offtrack signal input ("H": Offtrack).
37	TRCRS	I	Track cross signal input.
38	$\overline{RFDET}$	I	RF detecting signal input ("L": detecting).
39	BDO	I	Drop out signal input ("H": Drop out).
40	LDON	O	Laser ON signal output ("H": ON).
41	TES	O	Tracking error shunt signal output ("H": shunt).
42	PLAY	O	Play signal output ("H": play).
43	WVEL	O	Double speed status signal output.
44	ARF	I	RF signal input.
45	IREF	I	Reference current input terminal.

Pin No.	Symbol	I/O	Function
46	DRF	I	Bias terminal for DSL.
47	DSLF	I/O	Loop filter terminal for DSL.
48	PLLF	I/O	Loop filter terminal for PLL.
49	VCOF	I/O	Loop filter terminal for VCO.
50	AVDD2	I	Power supply for analog circuit (for DSL, PLL and DA output sections).
51	AVSS2	I	Ground for analog circuit (for DSL, PLL and DA output sections).
52	EFM	O	EFM signal output.
53	PCK	O	PLL extract clock output (fPCK=4.321MHz).
54	PDO	O	Phase comparing signal output when compared EFM signal and PCK signal.
55	SUBC	O	Subcode serial data output.
56	SBCK	I	Clock input for subcode serial output.
57	VSS	I	Ground for oscillating circuit.
58	X1	I	Crystal oscillating circuit input terminal. (f=16.9344MHz)
59	X2	O	Crystal oscillating circuit output terminal (f=16.9344MHz).
60	VDD	I	Power supply for oscillating circuit.
61	BYTCK	O	Byte clock output.
62	$\overline{\text{CLDCK}}$	O	Subcode frame clock signal output (fCLDCK=7.35kHz)
63	FCLK	O	Crystal frame clock output (fFCLK=7.35kHz).
64	IPFLAG	O	Interpolation flag output ("H": interpolation).
65	FLAG	O	Flag output.
66	CLVS	O	Spindle servo phase synchronous state signal output ("H":CLV, "L":Rough servo).
67	CRC	O	Subcode CRC check result output ("H":OK, "L":NG).
68	DEMPH	O	Deemphasis detecting signal output ("H":ON).
69	RESY	O	Re-synchronous signal output of frame synchronous ("H": synchronous, "L": synchronous come off).
70	$\overline{\text{RST2}}$	I	Reset terminal for stopped MASH circuit ("L": Reset).
71	$\overline{\text{TEST}}$	I	Test terminal (normally "H").
72	AVDD1	I	Power supply for analog circuit (Audio output using both as Lch and Rch).
73	OUTL	O	Lch output.
74	AVSS1	I	Ground for analog circuit (Audio output using both as Lch and Rch).
75	OUTR	O	Rch output.
76	RSEL	I	RF signal polarity selective terminal (RSEL="H" at brightness level "H". RSEL="L" at brightness level "L").
77	CSEL	I	Crystal oscillating frequency selective terminal (normally "L").
78	PSEL	I	Test terminal (normally "L").
79	MSEL	I	SMCK and frequency shifting output terminal ("H": SMCK=8.4672MHz, "L": SMCK=4.2336MHz).
80	SSEL	I	SUBQ and mode shifting output terminal ("H": Q code buffer using mode).

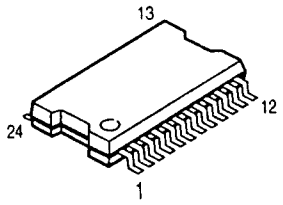
AN8805SB (IC100)

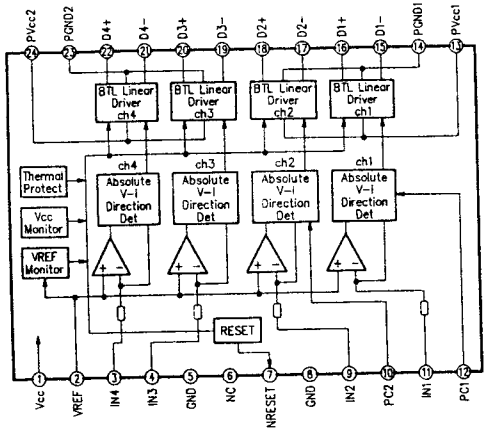


AN8805SB Terminal Function

Pin No.	Symbol	I/O	Function
1	PD	I	Inputs PD signal for output monitor of LD.
2	LD	O	Connet to external transistor's base for LD drive.
3	LDON	I	Shifts LD APC ON/OFF.
4	C.CRS	—	Capacitor connecting terminal for CROSS.
5	VCC	—	Power supply connecting terminal.
6	RF-	I	RF AMP reversal input terminal. Connect a resistor.
7	RFOUT	O	RF AMP output terminal (reversal AMP).
8	RFIN	I	Input terminal of RF AGC.
9	C. AGC	—	Capacitor connecting terminal for RF AGC loop filter.
10	ARF	O	RF output terminal of after AGC.
11	C. ENV	—	Capacitor connecting terminal for RF.
12	C. EA	—	Capacitor connecting terminal for AMP.
13	C. SBDO	—	Capacitor connecting terminal for low speed detection of dark level DO detection.
14	BDO	O	BDO detection output terminal. Positive logic.
15	C. SBRT	—	Capacitor connecting terminal for low speed detection of OFTR detection.
16	OFTR	O	Output terminal of OFF TRACK detection. Positive logic.
17	NRFDET	O	Output terminal of RF signal amplitude detection. Negative logic.
18	GND	—	GND.
19	ENV	O	ENV output terminal.
20	VREF	O	VCC x 0.5(V) output terminal.
21	LD OFF	I	Input terminal of LD APC forcible stop.
22	VDET	O	Output terminal of vibration detection.
23	TEBPF	I	Input terminal of vibration detection.
24	CROSS	O	Output terminal of TE CROSS detection signal.
25	TEOUT	O	Output terminal of TEAMP.
26	TE-	I	TEAMP reversal input terminal. Connect a resistor.
27	FEOUT	O	Output terminal of FEAMP.
28	FE-	I	FEAMP reversal input terminal. Connect a resistor.
29	FBAL	I	Control signal input terminal of FO balance adjustment.
30	TBAL	I	Control signal input terminal of TE balance adjustment.
31	PDFR	—	Resistor connecting terminal for setting IV converting resistance value of PDE.
32	PDER	—	Resistor connecting terminal for setting IV converting resistance value of PDF.
33	PDE	I	Connect to PIN diode E.
34	PDF	I	Connect to PIN diode F.
35	PDBD	I	Connect to B,D of astigmatism 1/4 divided PD.
36	PDAC	I	Connect to A,C of astigmatism 1/4 divided PD.

AN8389S (IC101)

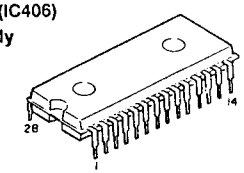




AN8389S Terminal Function

Pin No.	Symbol	I/O	DC Voltage (Vcc/8V)	Equivalent Circuit Diagram	Function
1	SVcc	I	8V	①	SVcc terminal for driver control circuit, not connected to power Vcc terminal.
2	Vref	I	2.5V	②	Vref input terminal.
3	IN4	I	2.5V	④ or ③, 500	Driver 4 error input terminal.
4	IN3	I	2.5V		Driver 3 error input terminal.
5	SGND	I	0V	⑤	SGND terminal for driver control circuit.
6	NC				
7	NRESET	O	—	⑦, 200	Reset output terminal.
8	SGND	I	0V	⑧	SGND terminal for driver control circuit.
9	IN2	I	2.5V	⑨, 500	Driver 2 error input terminal.
10	PC2	I	0V	⑩	Control power cutting input terminal to ⑰ and ⑱ output.
11	IN1	I	2.5V	⑪, 500	Driver 1 error input terminal.
12	PC1	I	0V	⑫	Control power cutting input terminal to ⑮ and ⑯ output.
13	PVcc1	I	8V	⑬	Supply current feeding ⑮ - ⑱ power output transistor from Vcc power supply terminal.
14	PGND1	I	0V	⑭	P GND terminal for ⑮ - ⑱ output transistor.
15	D1–	O	0V	(PVcc), ⑲⑮ or ⑳⑯ or ㉑⑰ or ㉒⑱	Driver 1 inverting output terminal.
16	D1+	O	0V		Driver 1 noninverting output terminal.
17	D2–	O	0V		Driver 2 inverting output terminal.
18	D2+	O	0V		Driver 2 noninverting output terminal.
19	D3–	O	0V		Driver 3 inverting output terminal.
20	D3+	O	0V		Driver 3 noninverting output terminal.
21	D4–	O	0V		Driver 4 inverting output terminal.
22	D4+	O	0V		Driver 4 noninverting output terminal.
23	PGND2	I	0V	㉓	P GND terminal for ⑲ - ㉒ output transistor.
24	PVcc2	I	8V	㉔	Supply current feeding ⑲ - ㉒ power output transistor from Vcc power supply terminal.

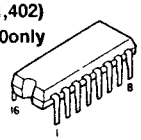
PCM1710U (IC406)
DCM-260only

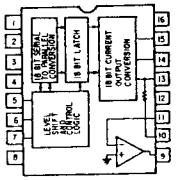


PCM1710U Terminal Function

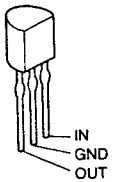
Terminal No.	Symbol	Function	Terminal No.	Symbol	Function
1	-Vcc	Analog Negative Supply.	15	LEC	Latch Enable Control Input
2	SERVO DC(L)	Servo Filter (L-ch)	16	DATA (R)	Data Input (R-ch)
3	MSB ADJ (L)	MSB Adjust (L-ch)	17	D. GND	Digital Ground
4	NC	No connection	18	NC	No Connection
5	BPO DC (L)	Offset Filter (L-ch)	19	Vout (R)	Voltage Output (R-ch)
6	Iout (L)	Current Output (L-ch)	20	S.J (R)	Summing Junction (R-ch)
7	A. GND	Analog Ground	21	A. GND	Analog Ground
8	S. J(L)	Summing Junction (L-ch)	22	Iout (R)	Current Output (R-ch)
9	Vout(L)	Voltage Output (L-ch)	23	BPO DC (R)	Offset Filter (R-ch)
10	NC	No connection	24	MSB ADJ (R)	MSB Adjust (R-ch)
11	+Vdd	Digital Positive Supply	25	SERVO DC (R)	Servo Filter (R-ch)
12	DATA (L)	Data Input (L-ch)	26	Vpot	V trim
13	CLOCK	Clock Input	27	+Vcc	Analog Positive Supply
14	-Vdd	Digital Negative Supply	28	D. GND	Digital Ground

PCM61P-L
(IC401,402)
DCM-360only

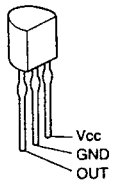




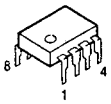
TA78DL05S
(IC500)

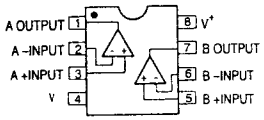


PST529C
(IC550)



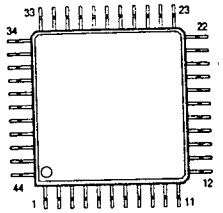
NJM4558D
(IC200,201,404,405)
(IC403:DCM-360only)

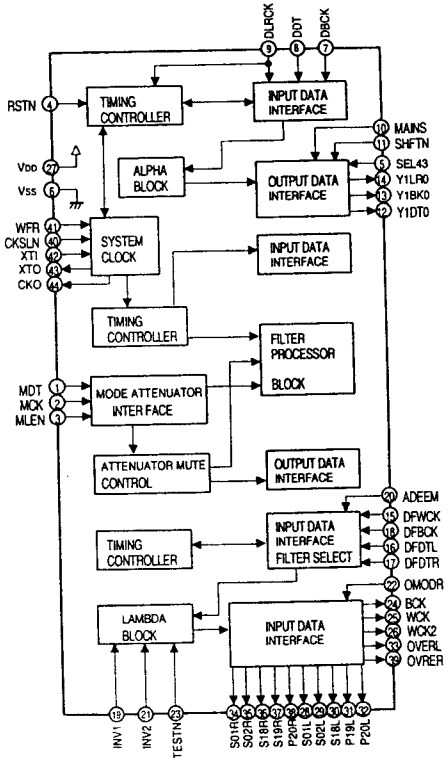




●IC PROTECTOR
ICP-N15 (ICP501,502)

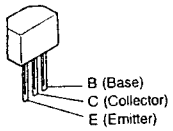
SM5848-AF (IC400)
DCM-360only



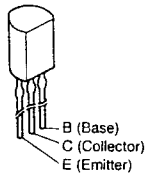


TRANSISTORS

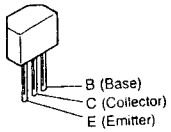
2SA933S
2SC1740S
2SD2144TPU



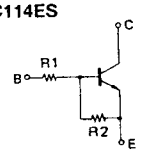
2SB562 (B)
2SD468 (C)



DTC114ES
DTA124XS
DTA144ES

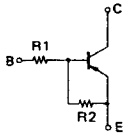


DTC114ES



	R1	R2
DTC114ES	10kohm	10kohm

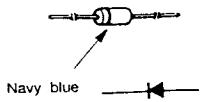
DTA124XS
DTA144ES



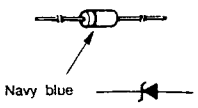
	R1	R2
DTA124XS	22kohm	47kohm
DTA144ES	47kohm	47kohm

DIODES

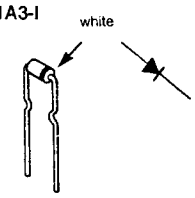
ISS270A



HZS6B-1
HZS7B-2



1A3-I



NOTE FOR PARTS LIST

- Part indicated with the mark " ◉ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "l" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ■ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

• Resistors

Ex.: RN (Type) 14K (Shape and performance) 2E (Power) 182 (Resistance) G (Allowable error) FR (Others)

RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming

• Resistance

1 8 2 ⇒ 1800 ohm = 1.8 kohm
2 : 2-digit effective number.
8 : Indicates number of zeros after effective number.
• Units: ohm

1 R 2 ⇒ 1.2 ohm
2 : 2-digit effective number.
1 : 1-digit effective number.
R : decimal point indicated by R.
• Units: ohm

• Capacitors

Ex.: CE (Type) 04W (Shape and performance) 1H (Dielectric strength) 2R2 (Capacity) M (Allowable error) BP (Others)

CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CO : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For charge and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL·CSA type F : Lead wire forming

• Capacity (electrolyte only)

2 2 2 ⇒ 2200μF
2 : 2-digit effective number.
2 : Indicates number of zeros after effective number.
• Units: μF.

2 R 2 ⇒ 2.2μF
2 : 2-digit effective number.
R : 2-digit effective number, decimal point indicated by R.
• Units: μF.

• Capacity (except electrolyte)

2 2 2 ⇒ 2200pF = 0.0022μF
2 : 2-digit effective number.
2 : Indicates number of zeros after effective number. (More than 2)
• Units: μF.

2 2 1 ⇒ 220pF
2 : 2-digit effective number.
1 : Indicates number of zeros after effective number. (0 or 1)
• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

PARTS LIST OF PRINTED WIRING BOARD

MAIN P.W.B. UNIT Ass'y (DCM-360)

Ref.No.	Part No.	Part name	Remarks
SEMICONDUCTORS GROUP			
IC100	262 2142 904	IC AN8805SB	
IC101	262 2143 903	IC AN8389S	
IC102	262 2141 002	IC MN662720RB	
IC200,201	263 0081 002	IC NJM4558D	
IC300	9KT H0C0 16	IC HD6473724F	μ-com
IC400	262 1869 000	IC SM5845AF	
IC401,402	262 1409 004	IC :PCM61P-L	
IC403~405	263 0081 002	IC NJM4558D	
IC500	268 0088 000	IC TA78DL05S	Regulator +5 V
IC550	263 0652 907	IC PST529C	
ICP501,502	268 0073 905	ICP-N15T	IC protector
TR100	271 0192 002	Transistor 2SA933S(S)	
TR200	274 0036 002	Transistor 2SD468(C)	
TR201	272 0025 004	Transistor 2SB562(B)	
TR202	274 0036 002	Transistor 2SD468(C)	
TR203	272 0025 004	Transistor 2SB562(B)	
TR204,205	273 0303 910	Transistor 2SC1740S(S)	
TR206	274 0036 002	Transistor 2SD468(C)	
TR207	272 0025 004	Transistor 2SB562(B)	
TR208	9KL 01E0 37	Transistor ST-8L	
TR209,210	273 0303 910	Transistor 2SC1740S(S)	
TR400,401	274 0160 907	Transistor 2SD2144STPU	
TR501	272 0025 004	Transistor 2SB562(B)	
TR502	274 0160 907	Transistor 2SD2144STPU	
TR505	269 0014 006	Transistor DTA124XS	Built in resistor
TR506	269 0020 906	Transistor DTC114ES	Built in resistor
D150	276 0462 902	Zener diode HZS6B-1	6 V
or	276 0637 902	Zener diode MTZJ6.2A	6.2 V
D250,251	276 0432 000	Diode 1SS270A	
D350~353	276 0462 902	Zener diode HZS6B-1	6 V
or	276 0637 902	Zener diode MTZJ6.2A	6.2 V
D500~505	276 0613 900	Diode :1A3-1	
D506	276 0465 912	Zener diode HZS7B-2	7 V
D508	276 0613 900	Diode :1A3-1	
D510	276 0462 902	Zener diode HZS6B-1	6 V
D514	276 0432 000	Diode 1SS270A	

Ref.No.	Part No.	Part Name	Remarks
LD200	9KL 01E0 36	LD EL-8L	
SE200	278 0006 005	Photo interruptor	(GP1A52HR)
RESISTORS GROUP			
VR400,401	9KE K0L0 65	Semi fixed resistor	V06PB104
R100	241 2396 025	Carbon film 100ohm 1/6W	RD14B2E101J(5)
R101	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R104	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R105,106	241 2399 996	Carbon film 3.9kohm 1/6W	RD14B2E392J(5)
R107	241 2399 970	Carbon film 3.3kohm 1/6W	RD14B2E332J(5)
R108	241 2402 935	Carbon film 39kohm 1/6W	RD14B2E393J(5)
R109	241 2404 014	Carbon film 220kohm 1/6W	RD14B2E224J(5)
R110	241 2401 994	Carbon film 27kohm 1/6W	RD14B2E273J(5)
R111	241 2402 090	Carbon film 68kohm 1/6W	RD14B2E683J(5)
R112	241 2404 959	Carbon film 330kohm 1/6W	RD14B2E334J(5)
R113	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R114	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R115	241 2399 051	Carbon film 2.7kohm 1/6W	RD14B2E272J(5)
R116	241 2399 048	Carbon film 2.4kohm 1/6W	RD14B2E242J(5)
R117	241 2402 977	Carbon film 56kohm 1/6W	RD14B2E563J(5)
R118	241 2400 911	Carbon film 4.7 kohm 1/6W	RD14B2E472J(5)
R119	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R120	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R121	241 2399 051	Carbon film 2.7kohm 1/6W	RD14B2E272J(5)
R122	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R123	241 2404 946	Carbon film 300kohm 1/6W	RD14B2E304J(5)
R124	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R125	241 2400 911	Carbon film 4.7kohm 1/6W	RD14B2E472J(5)
R126	241 2403 015	Carbon film 82 kohm 1/6W	RD14B2E823J(5)
R127	241 2396 025	Carbon film 100ohm 1/6W	RD14B2E101J(5)
R129	241 2396 025	Carbon film 100ohm 1/6W	RD14B2E101J(5)
⚠R130	244 2044 017	Metaloxide 22ohm 1W	RS14B3A220JNBS
R140	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R142	241 2402 090	Carbon film 68kohm 1/6W	RD14B2E683J(5)
R143	241 2405 973	Carbon film 1Mohm 1/6W	RD14B2E105J(5)
R144	241 2403 934	Carbon film 100kohm 1/6W	RD14B2E104J(5)
R145	241 2403 950	Carbon film 120 kohm 1/6W	RD14B2E124J(5)
R146	241 2397 998	Carbon film 560ohm 1/6W	RD14B2E561J(5)
R148	241 2398 010	Carbon film 680ohm 1/6W	RD14B2E681J(5)
R150~152	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R200	241 2396 944	Carbon film 120ohm 1/6W	RD14B2E121J(5)
R201	241 2407 008	Carbon film 1ohm 1/6W	RD14B2E010J(5)
R202,203	241 2394 069	Carbon film 22ohm 1/6W	RD14B2E220J(5)
R204	241 2402 090	Carbon film 68kohm 1/6W	RD14B2E683J(5)
R205	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R206	241 2403 015	Carbon film 82kohm 1/6W	RD14B2E823J(5)
R207	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R208,209	241 2403 060	Carbon film 130kohm 1/6W	RD14B2E134J(5)
R210	241 2407 008	Carbon film 1ohm 1/6W	RD14B2E010J(5)

Ref.No.	Part No.	Part Name	Remarks
R211	241 2397 901	Carbon film 220ohm 1/6W	RD14B2E221J(5)
R213	241 2402 090	Carbon film 68kohm 1/6W	RD14B2E683J(5)
R214	241 2403 002	Carbon film 75kohm 1/6W	RD14B2E753J(5)
R215	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R216,217	241 2403 950	Carbon film 120kohm 1/6W	RD14B2E124J(5)
R218	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R219,220	241 2403 044	Carbon film 110kohm 1/6W	RD14B2E114J(5)
R221,222	241 2402 951	Carbon film 47kohm 1/6W	RD14B2E473J(5)
R223	241 2401 965	Carbon film 20kohm 1/6W	RD14B2E203J(5)
R224	241 2402 919	Carbon film 33kohm 1/6W	RD14B2E333J(5)
R225	241 2403 015	Carbon film 82kohm 1/6W	RD14B2E823J(5)
R226	241 2401 965	Carbon film 20kohm 1/6W	RD14B2E203J(5)
R228,229	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R230	241 2396 944	Carbon film 120ohm 1/6W	RD14B2E121J(5)
R231	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R232	241 2397 972	Carbon film 470ohm 1/6W	RD14B2E471J(5)
R235	241 2407 008	Carbon film 1ohm 1/6W	RD14B2E010J(5)
R236	241 2402 919	Carbon film 33kohm 1/6W	RD14B2E333J(5)
R237	241 2402 980	Carbon film 62kohm 1/6W	RD14B2E623J(5)
R250	241 2399 996	Carbon film 3.9kohm 1/6W	RD14B2E392J(5)
R251,252	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R253	241 2399 996	Carbon film 3.9kohm 1/6W	RD14B2E392J(5)
R300	241 2405 973	Carbon film 1Mohm 1/6W	RD14B2E105J(5)
R302	241 2402 951	Carbon film 47kohm 1/6W	RD14B2E473J(5)
R304~310	241 2402 951	Carbon film47 kohm 1/6W	RD14B2E473J(5)
R313	241 2402 951	Carbon film 47kohm 1/6W	RD14B2E473J(5)
R314,315	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R400~404	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R405	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R406	241 2404 991	Carbon film 470kohm 1/6W	RD14B2E474J(5)
R407	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R408	241 2404 991	Carbon film 470kohm 1/6W	RD14B2E474J(5)
R409	241 2405 932	Carbon film 680kohm 1/6W	RD14B2E684J(5)
R410	241 2403 934	Carbon film 100kohm 1/6W	RD14B2E104J(5)
R411	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R412	241 2394 027	Carbon film 15ohm 1/6W	RD14B2E150J(5)
R413	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R414	241 2403 015	Carbon film 82kohm 1/6W	RD14B2E823J(5)
R415	241 2403 934	Carbon film 100kohm 1/6W	RD14B2E104J(5)
R416	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R417	241 2405 932	Carbon film 680kohm 1/6W	RD14B2E684J(5)
R418	241 2394 027	Carbon film 15ohm 1/6W	RD14B2E150J(5)
R419	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R420	241 2403 015	Carbon film 82kohm 1/6W	RD14B2E823J(5)
R421,422	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R427,428	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
R429,430	241 2402 951	Carbon film 47kohm 1/6W	RD14B2E473J(5)
R431,432	241 2398 010	Carbon film 680ohm 1/6W	RD14B2E681J(5)

Ref.No.	Part No.	Part Name	Remarks
R433,434	241 2399 051	Carbon film 2.7kohm 1/6W	RD14B2E272J(5)
R435,436	241 2397 901	Carbon film 220ohm 1/6W	RD14B2E221J(5)
R437	241 2402 003	Carbon film 30kohm 1/6W	RD14B2E303J(5)
R438	241 2400 005	Carbon film 4.3kohm 1/6W	RD14B2E432J(5)
R439	241 2399 996	Carbon film 3.9kohm 1/6W	RD14B2E392J(5)
R440	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R441	241 2402 003	Carbon film 30kohm 1/6W	RD14B2E303J(5)
R442	241 2400 005	Carbon film 4.3kohm 1/6W	RD14B2E432J(5)
R443	241 2399 996	Carbon film 3.9kohm 1/6W	RD14B2E392J(5)
R444	241 2401 059	Carbon film 18kohm 1/6W	RD14B2E183J(5)
R447	241 2405 973	Carbon film 1Mohm 1/6W	RD14B2E105J(5)
R449	241 2405 973	Carbon film 1Mohm 1/6W	RD14B2E105J(5)
R501	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R502	241 2403 934	Carbon film 100kohm 1/6W	RD14B2E104J(5)
R503,504	241 2396 025	Carbon film 100ohm 1/6W	RD14B2E101J(5)
R505	241 0141 007	Carbon film 15ohm 1/2W	RD14B2H150J
R506	241 2400 034	Carbon film 5.6kohm 1/6W	RD14B2E562J(5)
R511	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R512	241 2392 906	Carbon film 430ohm 1/6W	RD14B2E431J(5)
R513	241 2404 001	Carbon film 200kohm 1/6W	RD14B2E204J(5)
R514	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)
R515	241 2396 012	Carbon film 91ohm 1/6W	RD14B2E910J(5)
R550	241 2400 924	Carbon film 5.1kohm 1/6W	RD14B2E512J(5)
R551	241 2396 025	Carbon film 100ohm 1/6W	RD14B2E101J(5)
R552,553	241 2400 995	Carbon film 10kohm 1/6W	RD14B2E103J(5)
RA300	9KR 01A0 18	Resistor array 47kohmx8	
RA301	9KR 01A0 19	Resistor array 47kohmx9	
RA302	9KR 01A0 20	Resistor array 47kohmx5	
CAPACITORS GROUP			
C100	254 4260 951	Electrolytic 2.2 μF/50V	CE04W1H2R2M
C101	253 3627 000	Ceramic cap. 100pF/50V	CC45SL1H101J
C102	253 4342 041	Ceramic cap. 5pF/50V	CC45SL1H050C
C103	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C104	254 4260 045	Electrolytic 1 μF/50V	CE04W1H010M
C105	253 3627 000	Ceramic cap. 100pF/50V	CC45SL1H101J
C106	253 9035 023	BC ceramic 0.027 μF/25V	CK45-1E273K
C107	253 1006 005	Ceramic cap. 2200pF/50V	CK45B1H222K
C108	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C109	254 4254 051	Electrolytic 220 μF/16V	CE04W1C221M
C110	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C112	253 1006 005	Ceramic cap. 2200pF/50V	CK45B1H222K
C113	253 9031 001	BC ceramic 0.047 μF/25V	CK45-1E473K
C114	253 1008 003	Ceramic cap. 4700pF/50V	CK45B1H472K
C115	253 3639 001	Ceramic cap. 330pF/50V	CC45SL1H331J
C116	253 3625 002	Ceramic cap. 82pF/50V	CC45SL1H820J
C117,118	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C120	253 3635 005	Ceramic cap. 220pF/50V	CC45SL1H221J

Ref.No.	Part No.	Part Name	Remarks
C123	253 3635 005	Ceramic cap. 220pF/50V	CC45SL1H221J
C124	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C125	254 4252 040	Electrolytic 220 μF/10V	CE04W1A221M
C126	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C127	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C140	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C141	254 4250 026	Electrolytic 100 μF/6.3V	CE04W0J101M
C142	253 3627 000	Ceramic cap. 100pF/50V	CC45SL1H101J
C143	253 1055 014	Ceramic cap. 560pF/50V	CK45B1H561K
C144,145	253 1025 002	Ceramic cap. 0.022 μF/50V	CK45F1H223Z
C146	254 4261 028	Electrolytic 100 μF/50V	CE04W1H101M
C147	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C148	255 1134 054	Film cap. 0.1 μF/50V	CQ92M1H104J
C149	255 1137 051	Film cap. 0.33 μF/50V	CQ92M1H334J
C153	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010M
C154	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C155	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010M
C157,158	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C159	253 1005 006	Ceramic cap. 1500pF/50V	CK45B1H152K
C160	253 1008 003	Ceramic cap. 4700pF/50V	CK45B1H472K
C161	255 1028 005	Film cap. 0.18 μF/50V	CQ92M1H184K
C162	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C163~165	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C166	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010M
C168	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010M
C171	253 4443 908	Ceramic cap. 200pF/50V	CC45SL1H201J
C200	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C201	253 3620 007	Ceramic cap. 51pF/50V	CC45SL1H510J
C203,204	254 4260 993	Electrolytic 22 μF/50V	CE04W1H220M
C205,206	254 9014 005	Electrolytic 0.1 μF/50V	CE04W1H0R1M
C207	253 3620 007	Ceramic cap. 51pF/50V	CC45SL1H510J
C209	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C300	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C401,402	253 3603 008	Ceramic cap. 10pF/50V	CC45SL1H100D
C403	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C404	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
C405	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C406	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
C407	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C408	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
C409,410	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C411	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
C412,413	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C414	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
C415,416	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C417	253 1055 027	Ceramic cap. 820pF/50V	CK45B1H821K
C418	253 3633 007	Ceramic cap. 180pF/50V	CC45SL1H181J
C419,420	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K

Ref.No.	Part No.	Part Name	Remarks
C421	253 1055 027	Ceramic cap. 820 pF/50V	CK45B1H821K
C422	253 3633 007	Ceramic cap. 180pF/50V	CC45SL1H181J
C423	253 3635 005	Ceramic cap. 220pF/50V	CC45SL1H221J
C424,425	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C426	253 3643 000	Ceramic cap. 470pF/50V	CC45SL1H471J
C427	253 3635 005	Ceramic cap. 220pF/50V	CC45SL1H221J
C428	253 3643 000	Ceramic cap. 470pF/50V	CC45SL1H471J
C429,430	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C431,432	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C433,434	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C435,436	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C437,438	253 3627 000	Ceramic cap. 100pF/50V	CC45SL1H101J
C439	253 1180 028	Ceramic cap. 1000pF/50V	CK45B1H102K
C500	254 4358 708	Electrolytic 3300 μF/16V	CE04W1C332MC
C501	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C502	254 4254 792	Electrolytic 2200 μF/16V	CE04W1C222MC
C503	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C504	254 4261 028	Electrolytic 100 μF/50V	CE04W1H101MC
C506	254 4254 051	Electrolytic 220 μF/16V	CE04W1C221M
C550,551	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C552	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C553	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C554	254 4260 980	Electrolytic 10 μF/50V	CE04W1H100M
C555	253 9039 003	Ceramic cap. 0.1 μF/25V	CK45-1E104Z
C560	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101MC

Ref.No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS				
	9KA 2P30 1A	P.W.board	(PCB100)	(1)
L401	235 0121 925	Inductor 10 μH		1
FB450	235 0049 007	Beads inductor		1
JK400	204 8373 001	2P pin jack		1
SW200	9KS 01W1 60	Switch	SSS-13	1
SW201	9KS 01W1 60	Switch	SSS-13	1
X400	399 0036 013	Crystal 16.9344 MHz		1
⚠T500	233 6205 001	:Power transformer	U.S.A. model	1
⚠T500	233 6206 000	:Power transformer	Europe model	1
MT202	–	T.motor	FF-130SH-11340	1
CB100A	–	6P connector base	B6B-PH-K-R	1
CB101A	–	6P connector base	B6B-PH-K-S	1
CB102A	–	6P connector base	B6B-PH-K-B	1
CB200A	–	2P connector base	SBRK2S-1	1
CB201A	–	4P connector base	SBRK4S-1	1
CB202A	–	3P connector base	B3B-PH-K-S	1
CB203A	–	3P connector base	SBRK3S-1	1
CB204A	–	3P connector base	B3B-PH-K-R	1
CB205A	–	6P connector base	B6B-PH-K-K	1
CB300A	205 0736 034	29P FFC connector (9603)	IMSA-9603-29	1
CB500A	–	6P connector base	SBRK6S-1	1
CW550A	–	DCM IC wire Yellow		1
CW550A	–	DCM IC wire Black		1
CW550A	–	DCM IC wire Red		1
CW100B	–	Shield wire 360/260		1
CW101B	–	6P connector	CWPH06-260-30-N	1
CW102B	–	6P connector	CWPB06-160-28-N	1
CW200B	–	2P connector	F20-02-280-26-N	1
CW201B	–	4 P connector	F20-04-310-26-N	1
CW202B	–	3P connector	CSPH03-300-26-N	1
CW203B	–	3P connector	F20-03-450-26-N	1
CW204B	–	Tray wire 360/260		1
CW205B	–	3P connector	CSPR03-310-26-N	1
CW500B	–	6P connector	F20-06-330-26-N	1

Ref.No.	Part No.	Part Name	Remarks	Q'ty
CW300C	9KA 92G2 35	29P FFC cable		1
CW150	–	DCM G wire B		1
CW151	–	DCM G wire C		1
CW450	–	DCM G wire A		1
CW550	–	Trans G wire		1
LP500	–	2P wrapping terminal		1
	–	Jumper wire P=5mm	R128,311,423,425, L150,151	6
	–	Heat sink		1
JV503	–	Jumper	U.S.A. model	1
JV501	–	Jumper	Europe model	1
	–	Jumper		1

FRONT UNIT Ass'y (DCM-360)

Ref.No.	Part No.	Part Name	Remarks	Q'ty
SEMICONDUCTORS GROUP				
TR600,601	274 0160 907	Transistor 2SD2144STPU		
D650~653	276 0462 902	Zener diode HZS6B-1	6 V	
or	276 0637 907	Zener diode MTZJ6.2A	6.2 V	
D655,656	276 0432 000	Diode 1SS270A		
RESISTORS GROUP				
R600	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)	
R601	241 2396 960	Carbon film 150ohm 1/6W	RD14B2E151J(5)	
R602	241 2396 083	Carbon film 180ohm 1/6W	RD14B2E181J(5)	
R603	241 2397 037	Carbon film 300ohm 1/6W	RD14B2E301J(5)	
R604	241 2392 906	Carbon film 430ohm 1/6W	RD14B2E431J(5)	
R605	241 2398 010	Carbon film 680ohm 1/6W	RD14B2E681J(5)	
R606	241 2398 081	Carbon film 1.3kohm 1/6W	RD14B2E132J(5)	
R607	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)	
R608	241 2396 960	Carbon film 150ohm 1/6W	RD14B2E151J(5)	
R609	241 2396 083	Carbon film 180ohm 1/6W	RD14B2E181J(5)	
R610	241 2397 037	Carbon film 300ohm 1/6W	RD14B2E301J(5)	
R612,613	241 2400 911	Carbon film 4.7kohm 1/6W	RD14B2E472J(5)	
R614,615	241 2395 068	Carbon film 56ohm 1/6W	RD14B2E560J(5)	
R616	241 2396 960	Carbon film 150ohm 1/6W	RD14B2E151J(5)	
R617	241 2398 955	Carbon film 1kohm 1/6W	RD14B2E102J(5)	
CAPACITORS GROUP				
C600,601	253 4541 907	Ceramic cap. 1000pF/50V	CC45CH1H102J (Temp.)	
C602,603	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z	
C604	253 1176 003	Ceramic cap. 0.1 μF/25V	CK45F1E104Z	
C605	253 4541 907	Ceramic cap. 1000pF/50V	CC45CH1H102J (Temp.)	
C650	253 4541 907	Ceramic cap. 1000pF/50V	CC45CH1H102J (Temp.)	
C651	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M	
OTHER PARTS GROUP				
	9KA 2A29 5A	P.W.board		(1)
SW600~609	212 4388 004	Tact switch		10
JK600	204 8364 007	Headphone jack		1
SEN600	9KE 01L9 00	Remocon sensor HC348MN		1
FL600	393 4107 005	FIP 9CDM7		1
	–	FIP cushion		2
CB300B	205 0736 034	29P FFC connector (9603)	IMSA-9603-29	1
CW600B	–	6P connector	F20-06-130-26-N	1
	–	Jumper		36

PARTS LIST OF PRINTED WIRING BOARD

MAIN P.W.B. UNIT Ass'y (DCM-260)

Ref.No.	Part No.	Part name	Remarks
SEMICONDUCTORS GROUP			
IC100	262 2142 904	IC AN8805SB	
IC101	262 2143 903	IC AN8389S	
IC102	262 2141 002	IC MN662720RB	
IC200,201	263 0081 002	IC NJM4558D	
IC300	9KT H0C0 16	IC HD6473724F	μ-com
IC404,405	263 0081 002	IC NJM4558D	
IC406	262 2107 907	IC PCM1710U	
IC500	268 0088 000	IC TA78DL05S	Regulator +5V
IC550	263 0652 907	IC PST529C	
ICP501,502	268 0073 905	ICP-N15T	IC protector
TR100	271 0192 002	Transistor 2SA933S(S)	
TR200	274 0036 002	Transistor 2SD468(C)	
TR201	272 0025 004	Transistor 2SB562(B)	
TR202	274 0036 002	Transistor 2SD468(C)	
TR203	272 0025 004	Transistor 2SB562(B)	
TR204,205	273 0303 910	Transistor 2SC1740S(S)	
TR206	274 0036 002	Transistor 2SD468(C)	
TR207	272 0025 004	Transistor 2SB562(B)	
TR208	9KL 01E0 37	Transistor ST-8L	
TR209,210	273 0303 910	Transistor 2SC1740S(S)	
TR400,401	274 0160 907	Transistor 2SD2144STPU	
TR501	272 0025 004	Transistor 2SB562(B)	
TR502	274 0160 907	Transistor 2SD2144STPU	
TR505	269 0014 006	Transistor DTA124XS	Built in resistor
TR506	269 0020 906	Transistor DTC114ES	Built in resistor
D150	276 0462 902	Zener diode HZS6B-1	6 V
or	276 0637 902	Zener diode MTZJ6.2A	6.2 V
D250,251	276 0432 000	Diode 1SS270A	
D350~353	276 0462 902	Zener diode HZS6B-1	6 V
or	276 0637 902	Zener diode MTZJ6.2A	6.2 V
D400,401	276 0432 000	Diode 1SS270A	
D450	276 0462 902	Zener diode HZS6B-1	6 V
D456,457	276 0432 000	Diode 1SS270A	
or	276 0637 902	Zener diode MTZJ6.2A	6.2 V
D500~505	276 0613 900	Diode :1A3-1	
D506	276 0465 921	Zener diode HZS7B-2	7 V
D508	276 0613 900	Diode :1A3-1	
D510	276 0462 902	Zener diode HZS6B-1	6 V
D514	276 0672 909	Diode 1SS270A	
LD200	9KL 01E0 36	LD EL-8L	
SE200	278 0006 005	Photo interruptor	(GP1A52HR)
RESISTORS GROUP			
R100	241 2396 025	Carbon film 100 ohm 1/6W	RD14B2E101J(5)
R101	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R104	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R105,106	241 2399 996	Carbon film 3.9 kohm 1/6W	RD14B2E392J(5)
R107	241 2399 970	Carbon film 3.3 kohm 1/6W	RD14B2E332J(5)
R108	241 2402 935	Carbon film 39 kohm 1/6W	RD14B2E393J(5)
R109	241 2404 014	Carbon film 220 kohm 1/6W	RD14B2E224J(5)
R110	241 2401 994	Carbon film 27 kohm 1/6W	RD14B2E273J(5)
R111	241 2402 090	Carbon film 68 kohm 1/6W	RD14B2E683J(5)
R112	241 2404 959	Carbon film 330 kohm 1/6W	RD14B2E334J(5)
R113	241 2404 001	Carbon film 200 kohm 1/6W	RD14B2E204J(5)
R114	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R115	241 2399 051	Carbon film 2.7 kohm 1/6W	RD14B2E272J(5)
R116	241 2399 048	Carbon film 2.4 kohm 1/6W	RD14B2E242J(5)
R117	241 2402 977	Carbon film 56 kohm 1/6W	RD14B2E563J(5)
R118	241 2400 911	Carbon film 4.7 kohm 1/6W	RD14B2E472J(5)
R119	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R120	241 2404 001	Carbon film 200 kohm 1/6W	RD14B2E204J(5)
R121	241 2399 051	Carbon film 2.7 kohm 1/6W	RD14B2E272J(5)
R122	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R123	241 2404 946	Carbon film 300 kohm 1/6W	RD14B2E304J(5)
R124	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R125	241 2400 911	Carbon film 4.7 kohm 1/6W	RD14B2E472J(5)
R126	241 2403 015	Carbon film 82 kohm 1/6W	RD14B2E823J(5)
R127	241 2396 025	Carbon film 100 ohm 1/6W	RD14B2E101J(5)
R129	241 2396 025	Carbon film 100 ohm 1/6W	RD14B2E101J(5)
⚠R130	244 2044 017	Metaloxide 22 ohm 1W	RS14B3A220JNBS
R140	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R142	241 2402 090	Carbon film 68 kohm 1/6W	RD14B2E683J(5)
R143	241 2405 974	Carbon film 1 Mohm 1/6W	RD14B2E105J(5)
R144	241 2403 934	Carbon film 100 kohm 1/6W	RD14B2E104J(5)
R145	241 2403 950	Carbon film 120 kohm 1/6W	RD14B2E124J(5)
R146	241 2397 998	Carbon film 560 ohm 1/6W	RD14B2E561J(5)
R148	241 2398 010	Carbon film 680 ohm 1/6W	RD14B2E681J(5)
R150~152	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R200	241 2396 944	Carbon film 120 ohm 1/6W	RD14B2E121J(5)
R201	241 2407 008	Carbon film 1 ohm 1/6W	RD14B2E010J(5)
R202,203	241 2394 069	Carbon film 22 ohm 1/6W	RD14B2E220J(5)
R204	241 2402 090	Carbon film 68 kohm 1/6W	RD14B2E683J(5)
R205	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R206	241 2403 015	Carbon film 82 kohm 1/6W	RD14B2E823J(5)

Ref.No.	Part No.	Part Name	Remarks
R207	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R208,209	241 2403 060	Carbon film 130 kohm 1/6W	RD14B2E134J(5)
R210	241 2407 008	Carbon film 1 ohm 1/6W	RD14B2E010J(5)
R211	241 2397 901	Carbon film 220 ohm 1/6W	RD14B2E221J(5)
R213	241 2402 090	Carbon film 68 kohm 1/6W	RD14B2E683J(5)
R214	241 2403 002	Carbon film 75 kohm 1/6W	RD14B2E753J(5)
R215	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R216,217	241 2403 950	Carbon film 120 kohm 1/6W	RD14B2E124J(5)
R218	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R219,220	241 2403 044	Carbon film 110 kohm 1/6W	RD14B2E114J(5)
R221,222	241 2402 951	Carbon film 47 kohm 1/6W	RD14B2E473J(5)
R223	241 2401 965	Carbon film 20 kohm 1/6W	RD14B2E203J(5)
R224	241 2402 919	Carbon film 33 kohm 1/6W	RD14B2E333J(5)
R225	241 2403 015	Carbon film 82 kohm 1/6W	RD14B2E823J(5)
R226	241 2401 965	Carbon film 20 kohm 1/6W	RD14B2E203J(5)
R228,229	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R230	241 2396 944	Carbon film 120 ohm 1/6W	RD14B2E121J(5)
R231	241 2400 955	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R232	241 2397 972	Carbon film 470 ohm 1/6W	RD14B2E471J(5)
R235	241 2407 008	Carbon film 1 ohm 1/6W	RD14B2E010J(5)
R236	241 2402 919	Carbon film 33 kohm 1/6W	RD14B2E333J(5)
R237	241 2402 980	Carbon film 62 kohm 1/6W	RD14B2E623J(5)
R250	241 2399 996	Carbon film 3.9 kohm 1/6W	RD14B2E392J(5)
R251,252	241 2400 955	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R253	241 2399 996	Carbon film 3.9 kohm 1/6W	RD14B2E392J(5)
R300	241 2405 974	Carbon film 1 Mohm 1/6W	RD14B2E105J(5)
R302	241 2402 951	Carbon film 47 kohm 1/6W	RD14B2E473J(5)
R304~310	241 2402 951	Carbon film 47 kohm 1/6W	RD14B2E473J(5)
R312,313	241 2402 951	Carbon film 47 kohm 1/6W	RD14B2E473J(5)
R314,315	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R421,422	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R423	241 2400 063	Carbon film 7.5 kohm 1/6W	RD14B2E752J(5)
R424	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R425	241 2400 063	Carbon film 7.5 kohm 1/6W	RD14B2E752J(5)
R426~428	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
R429,430	241 2402 951	Carbon film 47 kohm 1/6W	RD14B2E473J(5)
R431,432	*** **** ***	Carbon film 600 ohm 1/6W	RD14B2E601J(5)
R433,434	241 2399 051	Carbon film 2.7 kohm 1/6W	RD14B2E272J(5)
R435,436	241 2397 901	Carbon film 220 ohm 1/6W	RD14B2E221J(5)
R437	241 2402 003	Carbon film 30 kohm 1/6W	RD14B2E303J(5)
R438	241 2400 005	Carbon film 4.3 kohm 1/6W	RD14B2E432J(5)
R439	241 2399 996	Carbon film 3.9 kohm 1/6W	RD14B2E392J(5)
R440	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R441	241 2402 003	Carbon film 30 kohm 1/6W	RD14B2E303J(5)
R442	241 2400 005	Carbon film 4.3 kohm 1/6W	RD14B2E432J(5)
R443	241 2399 996	Carbon film 3.9 kohm 1/6W	RD14B2E392J(5)
R444	241 2401 059	Carbon film 18 kohm 1/6W	RD14B2E183J(5)
R445,446	241 2402 951	Carbon film 47 kohm 1/6W	RD14B2E473J(5)
R448	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)

Ref.No.	Part No.	Part Name	Remarks
R450	241 2393 989	Carbon film 10 ohm 1/6W	RD14B2E100J(5)
R501	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R502	241 2403 934	Carbon film 100 kohm 1/6W	RD14B2E104J(5)
R503,504	241 2396 025	Carbon film 100 ohm 1/6W	RD14B2E101J(5)
R505	241 0141 007	Carbon film 15 ohm 1/2W	RD14B2H150J
R506	241 2400 034	Carbon film 5.6 kohm 1/6W	RD14B2E562J(5)
R511	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R512	241 2392 906	Carbon film 430 ohm 1/6W	RD14B2E431J(5)
R513	241 2404 001	Carbon film 200 kohm 1/6W	RD14B2E204J(5)
R514	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)
R515	241 2396 012	Carbon film 91 ohm 1/6W	RD14B2E910J(5)
R550	241 2400 924	Carbon film 5.1 kohm 1/6W	RD14B2E512J(5)
R551	241 2396 025	Carbon film 100 ohm 1/6W	RD14B2E101J(5)
R552,553	241 2400 995	Carbon film 10 kohm 1/6W	RD14B2E103J(5)
RA300	9KR KOA0	Resistor array 47 kohm x 8	
RA301	9KR KOA0	Resistor array 47 kohm x 9	
RA302	9KR KOA0	Resistor array 47 kohm x 5	
CAPACITORS GROUP			
C100	254 4260 951	Electrolytic 2.2 μF/50V	CE04W1H2R2M
C101	253 3627 000	Ceramic cap. 100 pF/50V	CC45SL1H101J
C102	253 4342 041	Ceramic cap. 5 pF/50V	CC45SL1H050C
C103	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C104	254 4260 045	Electrolytic 1 μF/50V	CE04W1H010M
C105	253 3627 000	Ceramic cap. 100 pF/50V	CC45SL1H101J
C106	253 9035 023	BC ceramic 0.027 μF/25V	CK45-1E273K
C107	253 1006 005	Ceramic cap. 2200 pF/50V	CK45B1H222K
C108	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C109	254 4254 051	Electrolytic 220 μF/16V	CE04W1C221M
C110	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C112	253 1006 005	Ceramic cap. 2200 pF/50V	CK45B1H222K
C113	253 9031 001	BC ceramic 0.047 μF/25V	CK45-1E473K
C114	253 1008 003	Ceramic cap. 4700 pF/50V	CK45B1H472K
C115	253 3639 001	Ceramic cap. 330 pF/50V	CC45SL1H331J
C116	253 3625 002	Ceramic cap. 82 pF/50V	CC45SL1H820J
C117,118	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C120	253 3635 005	Ceramic cap. 220 pF/50V	CC45SL1H221J
C123	253 3635 005	Ceramic cap. 220 pF/50V	CC45SL1H221J
C124	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C125	254 4252 040	Electrolytic 220 μF/10V	CE04W1A221M
C126	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C127	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C140	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C141	254 4250 026	Electrolytic 100 μF/6.3V	CE04W0J101M
C142	253 3627 000	Ceramic cap. 100 pF/50V	CC45SL1H101J
C143	253 1055 014	Ceramic cap. 560 pF/50V	CK45B1H561K
C144,145	253 1025 002	Ceramic cap. 0.022 μF/50V	CK45F1H223Z
C146	254 4261 028	Electrolytic 100 μF/50V	CE04W1H101MC
C147	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K

Ref.No.	Part No.	Part Name	Remarks
C148	255 1134 054	Film cap. 0.1 μF/50V	CQ92M1H104J
C149	255 1137 051	Film cap. 0.33 μF/50V	CQ92M1H334J
C153	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010MBP (Bipole)
C154	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C155	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010MBP (Bipole)
C157,158	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C159	253 1005 006	Ceramic cap. 1500 pF/50V	CK45B1H152K
C160	253 1008 003	Ceramic cap. 4700 pF/50V	CK45B1H472K
C161	255 1028 005	Film cap. 0.18 μF/50V	CQ92M1H184J
C162	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C163~165	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C166	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010MBP (Bipole)
C168	254 3056 917	Electrolytic 1 μF/50V	CE04W1H010MBP (Bipole)
C170	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C171	253 4443 908	Ceramic cap. 200 pF/50V	CC45SL1H201J
C180	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C200	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C201	253 3620 007	Ceramic cap. 51 pF/50V	CC45SL1H510J
C203,204	254 4260 993	Electrolytic 22 μF/50V	CE04W1H220M
C205,206	254 9014 005	Electrolytic 0.1 μF/50V	CE04W1H0R1M
C207	253 3620 007	Ceramic cap. 51 pF/50V	CC45SL1H510J
C209	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C250	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C350	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C423	253 3639 001	Ceramic cap. 330 pF/50V	CC45SL1H331J
C424,425	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C426~428	253 3639 001	Ceramic cap. 330 pF/50V	CC45SL1H331J
C429,430	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C431,432	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C433,434	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C435,436	253 3603 008	Ceramic cap. 10 pF/50V	CC45SL1H100D
C437,438	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C440	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C442	254 4260 951	Electrolytic 2.2 μF/50V	CE04W1H2R2M
C444	254 4260 951	Electrolytic 2.2 μF/50V	CE04W1H2R2M
C450	254 4254 789	Electrolytic 1000 μF/16V	CE04W1C102MC
C451,452	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C453	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C455,456	253 3627 000	Ceramic cap. 100 pF/50V	CC45SL1H101J
C457,458	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C460	253 3627 000	Ceramic cap. 100 pF/50V (Europe,UK models)	CC45SL1H101J

Ref.No.	Part No.	Part Name	Remarks
C462	253 1180 028	Ceramic cap. 1000 pF/50V (Europe,UK models)	CK45B1H102K
C463	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
C465	253 1180 028	Ceramic cap. 1000 pF/50V	CK45B1H102K
C467~472	253 3627 000	Ceramic cap. 100 pF/50V	CC45SL1H101J
C473~476	253 1180 028	Ceramic cap. 1000 pF/50V (U.S.A. & Canada models)	CK45B1H102K
C477	253 3627 000	Ceramic cap. 100 pF/50V (U.S.A. & Canada models)	CC45SL1H101J
C478~483	253 3603 008	Ceramic cap. 10 pF/50V (U.S.A. & Canada models)	CC45SL1H100D
C500	254 4358 708	Electrolytic 3300 μF/16V	CE04W1C332MC
C501	254 4254 909	Electrolytic 10 μF/16V	CE04W1C100M
C502	254 4254 792	Electrolytic 2200 μF/16V	CE04W1C222MC
C503	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
C504	254 4261 028	Electrolytic 100 μF/50V	CE04W1H101MC
C506	254 4254 051	Electrolytic 220 μF/16V	CE04W1C221M
C550,551	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z
C552	253 9031 027	BC ceramic 0.1 μF/25V	CK45-1E104K
C553	253 1024 003	Ceramic cap. 0.01 μF/50	CK45F1H103Z
C554	254 4260 980	Electrolytic 10 μF/50V	CE04W1H100M
C555	253 9039 003	Ceramic cap. 0.1 μF/25V	CK45-1E104Z
C560	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M

Ref.No.	Part No.	Part Name	Remarks	Q'ty
OTHERS PARTS GROUP				
	9KA 2P24 1A	P.W.board		(1)
L150,151	235 0121 909	Inductor 3.3 μH		2
L400	235 0121 912	Inductor 5.6 μH		1
L450,451	235 0121 909	Inductor 3.3 μH		2
FB450	235 0049 007	Beads inductor	Europe,UK models	1
JK400	204 8373 001	2 P pin jack		1
SW200	9KS 01W1 60	Switch	SSS-13	1
SW201	9KS 01W1 60	Switch	SSS-13	1
X400	399 0036 013	Crystal 16.9344 MHz		1
⚠T500	233 6205 001	:Power transformer	U.S.A. model	1
⚠T500	233 6206 000	:Power transformer	Europe model	1
MT202	—	T.motor	FF-130SH-11340	1
CB100A	—	6 P connector base	B6B-PH-K-R	1
CB101A	—	6 P connector base	B6B-PH-K-S	1
CB102A	—	6 P connector base	B6B-PH-K-B	1
CB200A	—	2 P connector base	SBRK2S-1	1
CB201A	—	4 P connector base	SBRK4S-1	1
CB202A	—	3 P connector base	B3B-PH-K-S	1
CB203A	—	3 P connector base	SBRK3S-1	1
CB204A	—	3 P connector base	B3B-PH-K-R	1
CB205A	—	6 P connector base	B6B-PH-K-K	1
CB300A	205 0736 034	29 P FFC connector (9603)	IMSA-9603-29	1
CB500A	—	6 P connector base	SBRK6S-1	1
CW550A	—	DCM IC wire Yellow		1
CW550A	—	DCM IC wirew Black		1
CW550A	—	DCM IC wire Red		1
CW100B	—	Shield wire 360/260		1
CW101B	—	6 P connector	CWPH06-260-30-N	1
CW102B	—	6 P connector	CWPB06-160-28-N	1
CW200B	—	2 P connector	F20-02-280-26-N	1
CW201B	—	4 P connector	F20-04-310-26-N	1
CW202B	—	3 P connector	CSPH03-300-26-N	1
CW203B	—	3 P connector	F20-03-450-26-N	1
CW204B	—	Tray wire 360/260		1
CW205B	—	3 P connector	CSPR03-310-26-N	1
CW500B	—	6 P connector	F20-06-330-26-N	1
CW300C	—	29 P FFC cable		1
CW150	—	DCM G wire B		1
CW151	—	DCM G wire C		1
CW152	—	DCM G wire D	U.S.A. & Canada models	1
CW160	—	DCM G wire E	U.S.A. & Canada models	1
CW161	—	DCM G wire F	U.S.A. & Canada models	1
CW450	—	DCM G wire A		1
CW550	—	Trans G wire		1
LP500	—	2 P wrapping terminal		1
	—	Jumper wire P=5 mm	R128	1
	—	Heat sink-260		1
JV503	—	Jumper	U.S.A. model	1
JV501	—	Jumper	Europe model	1
	—	Jumper		1
	9KA 2P28 2A	Rubber sheet	U.S.A. & Canada models	12

FRONT UNIT Ass'y (DCM-260)

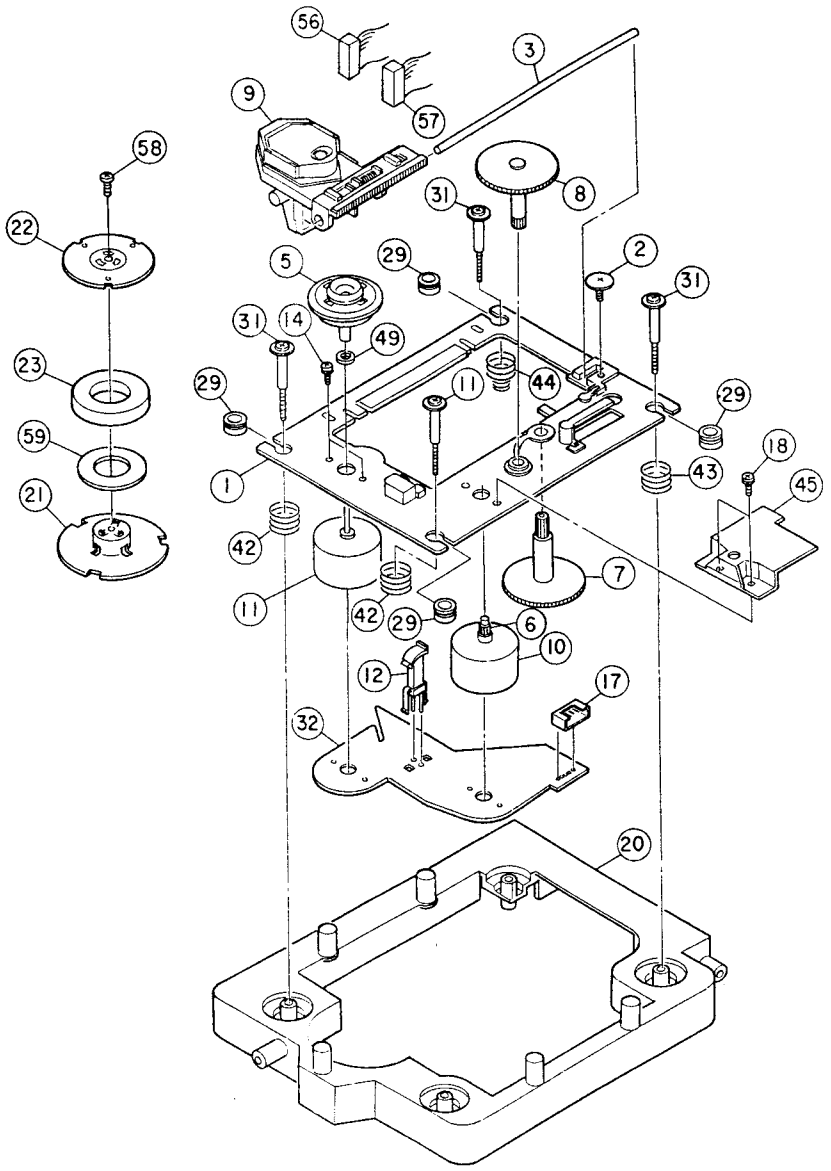
Ref.No.	Part No.	Part name	Remarks	Q'ty
SEMICONDUCTORS GROUP				
TR600,601	274 0160 907	Transistor 2SD2144STPU		
D650~653	276 0462 902	Zener diode HZS6B-1	6 V	
or	276 0637 907	Zener diode MTZJ6.2A	6.2 V	
D655,656	276 0432 000	Diode 1SS270A		
RESISTORS GROUP				
R600	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)	
R601	241 2396 960	Carbon film 150 ohm 1/6W	RD14B2E151J(5)	
R602	241 2396 083	Carbon film 180 ohm 1/6W	RD14B2E181J(5)	
R603	241 2397 037	Carbon film 300 ohm 1/6W	RD14B2E301J(5)	
R604	241 2392 906	Carbon film 430 ohm 1/6W	RD14B2E431J(5)	
R605	241 2398 010	Carbon film 680 ohm 1/6W	RD14B2E681J(5)	
R606	241 2398 081	Carbon film 1.3 kohm 1/6W	RD14B2E132J(5)	
R607	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)	
R608	241 2396 960	Carbon film 150 ohm 1/6W	RD14B2E151J(5)	
R609	241 2396 083	Carbon film 180 ohm 1/6W	RD14B2E181J(5)	
R610	241 2397 037	Carbon film 300 ohm 1/6W	RD14B2E301J(5)	
R612,613	241 2400 911	Carbon film 4.7 kohm 1/6W	RD14B2E472J(5)	
R614,615	241 2395 068	Carbon film 56 ohm 1/6W	RD14B2E560J(5)	
R616	241 2396 960	Carbon film 150 ohm 1/6W	RD14B2E151J(5)	
R617	241 2398 955	Carbon film 1 kohm 1/6W	RD14B2E102J(5)	
CAPACITORS GROUP				
C600,601	253 4541 907	Ceramic cap. 1000pF/50V	CC45CH1H102J(Temp.)	
C602,603	253 1024 003	Ceramic cap. 0.01 μF/50V	CK45F1H103Z	
C604	253 1176 003	Ceramic cap. 0.1 μF/25V	CK45F1E104Z	
C605	253 4541 907	Ceramic cap. 1000pF/50V	CC45CH1H102J(Temp.)	
C650	253 4541 907	Ceramic cap. 1000pF/50V	CC45CH1H102J(Temp.)	
C651	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M	
OTHERS PARTS GROUP				
	9KA 2A29 5A	P.W.board		(1)
SW600~609	212 4388 004	Tact switch		10
JK600	204 8364 007	Headphone jack		1
SEN600	9KE 01L9 00	Remocon sensor HC348MN		1
FL600	393 4107 005	FIP 9CDM7		1
	—	FIP cushion		2
CB300B	205 0736 034	29 P FFC connector (9603)	IMSA-9603-29	1
CW600B	—	6 P connector	F20-06-130-26-N	1
	—	Jumper		36

PARTS LIST OF CD MECHANISM

TCD-77S CD MECHANISM UNIT

Ref.No.	Part No.	Part name	Remarks	Q'ty
◎ 1	—	Base outsert FG40	include No.62	1
1-1	—	Base FG40		1
2	9KA 90H0 06	FS hold screw		1
3	9KA 4H00 2A	Feed shaft		1
5	—	Turn table Ass'y	include No.62	1
6	—	Gear motor FG40	include No.60	1
7	9KA 85G0 57	Foward gear A		1
8	9KA 85G0 18	Foward gear B		1
9	499 0289 005	Pick up HPC-1C		1
10	—	S motor RF-310T114C	include No.60	1
11	—	Motor RF310T11400-38	include No.62	1
12	9KS 01W1 47	Switch LSA-1121EAU		1
14	9KM 20S0 03	Screw M2x3 sems	include No.62	2
17	9KA 81G0 28	6 P Connector base	S6B-PH-K-S	1
18	9KM 20S0 04	Screw M2x4 sems		2
20	9KA 4G02 5A	Fram FG40K		1
21	—	Clamper F	include No.61	1
22	—	Clamper plate FG40	include No.61	1
23	9KA 82G0 57	Magnet 17x27x5	include No.61	1
29	9KA 4G02 1A	Damper FG40		4
31	9KA 85H0 01	Screw F		4
32	9KA 85P0 11	P.W.board FG40K		1
42	9KA 2S00 9A	Spring E		2
43	9KA 82S0 02	Spring B		1
44	9KA 82S0 03	Spring C		1
45	9KA 85G0 33	Gear guide		1
49	—	Oil stop washer	include No.62	1
56	9KA 2G31 5A	Shield wire 360/260		1
57	9KA 2G30 4A	6P connector	CWPH06-260-30-N	1
58	—	Screw M3 x 6 P tite	include No.61	1
59	—	Felt washer 1.7 x26.5	include No.61	1
60	9KA 85A0 04	Slide motor Ass'y (FG)	include 6,10	1s
61	9KA 2A29 6B	Clamper Ass'y	include 21,22,23,58,59	1s
62	9KA 85A0 14	Spindle motor Ass'y	include 1,5,11,14,49	1s

EXPLODED VIEW OF CD MECHANISM UNIT (TCD-77S)



PART LIST OF EXPLODED VIEW

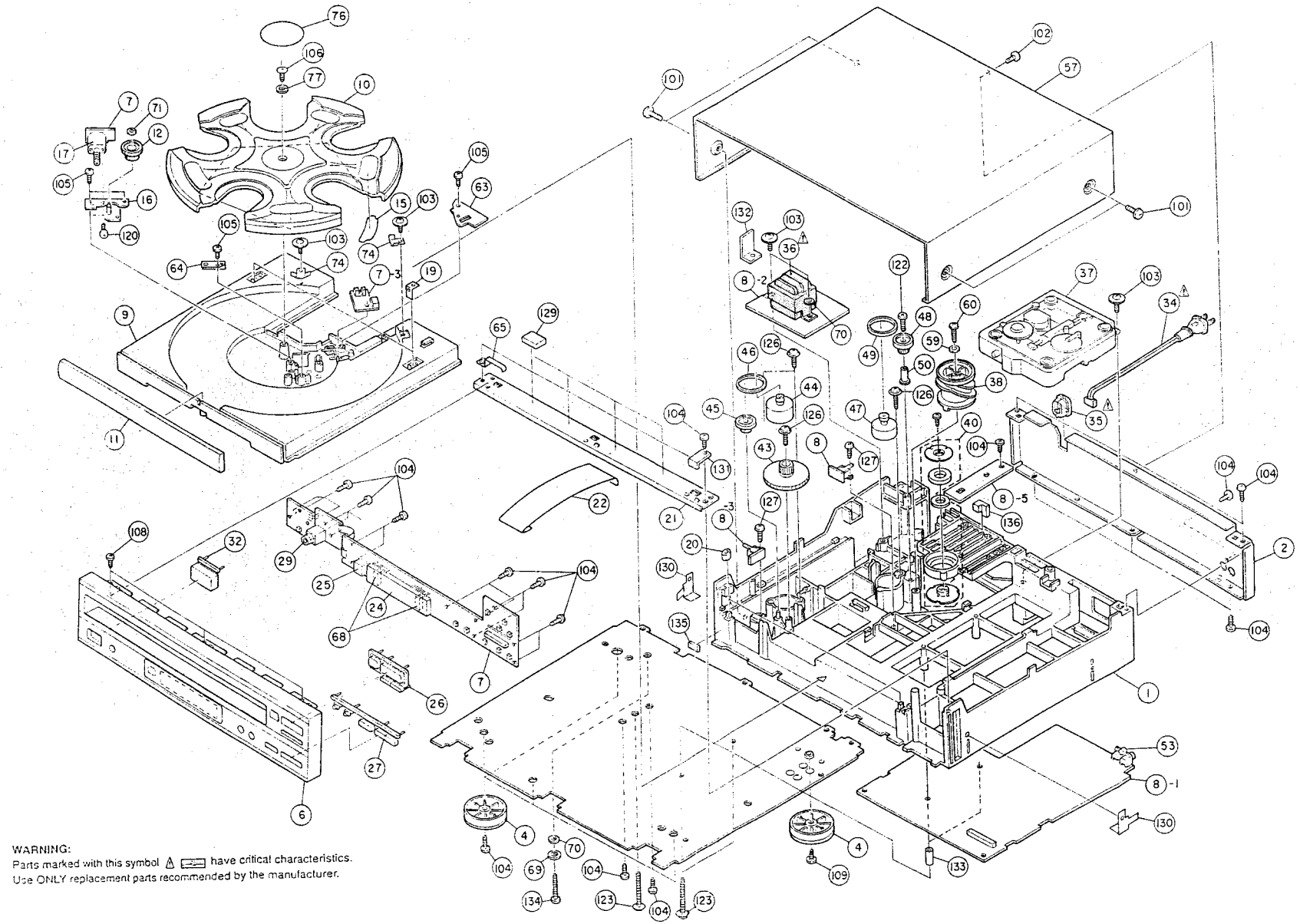
CHASSIS AND CABINET

Ref.No.	Part No.	Part Name	Remarks	Q'ty
1	9KA 2G07 9A	Mech. chassis (340)		1
2	9KA 2P29 9A	Rear panel	DCM-360 model	1
2	9KA 2P32 1A	Rear panel	DCM-260 model	1
3	9KA 92P0 87	Bottom cover		1
4	9KA 2A26 7A	Foot Ass'y		4
6	9KA 2A29 1A	Front panel Ass'y	DCM-360 model	1
6	9KA 2A29 2A	Front panel Ass'y	DCM-260 model	1
6-1	9KA 2G29 6A	Front panel (360)	DCM-360 model	(1)
6-1	9KA 2G31 6A	Front panel (260)	DCM-260 model	(1)
6-2	9KA 2P29 8A	Window		(1)
7	9KA 2A29 5A	Front P.W.B. unit Ass'y	including 24,25,29,68	1s
7-1	—	Display unit	PCB202	(1)
7-2	—	Headphone unit	PCB203	(1)
7-3	—	Power button unit	PCB204	(1)
8	9KA 2A26 7A	Main P.W.B. unit Ass'y	DCM-360 U.S.A.model including 53	1s
8	9KA 2A27 5A	Main P.W.B. unit Ass'y	DCM-360 Europe model including 53	1s
8	9KA 2A26 6A	Main P.W.B. unit Ass'y	DCM-260 U.S.A.model including 53	1s
8	9KA 2A27 4A	Main P.W.B. unit Ass'y	DCM-260 Europe, U.K. models including 53	1s
8-1	—	Main unit	PCB100	(1)
8-2	—	Trans unit	PCB102	(1)
8-3	—	Tray switch unit	PCB207	(1)
8-4	—	Clamper switch unit	PCB206	(1)
8-5	—	D. sens unit	PCB101	(1)
8-6	—	T.motor unit	PCB200	(1)
8-7	—	Tray sens unit	PCB201	(1)
9	9KA 2G33 2A	Tray DP		1
10	9KA 82G3 21	Turretto DP		1
11	9KA 2G29 9A	Loader panel		1
12	9KA 82G3 32	Turretto gear		1
15	9KA 82P0 57	Turretto cushion		5
16	9KA 82A0 41	Motor holder Ass'y		1
17	9KA 2A28 8A	Turretto motor Ass'y		1
19	9KA 82P0 46	Loader bracket		2
20	9KA 92G1 02	Loader stopper		2
21	9KA 92P0 94	Front bracket		1
22	9KA 92G2 35	29 P FFC cable		1
24	393 4107 005	FIP 9CDM7		1
25	9KE 01L9 00	Remocon sensor HC348MN		1
26	9KA 2G29 7A	Play button		1
27	9KA 2G29 8A	Skip button		1
★ 29	204 8364 007	Headphone jack		1
32	9KA 2G09 2A	Push button (P)		1
34	9KE 01L8 39	AC cord with conn.	U.S.A. model	1
34	9KE 01L8 62	AC cord with conn.	Europe model	1
34	9KE 01L9 09	AC cord with conn.	U.K. model	1
35	9KE 01L2 22	Cord bush		1
36	233 6205 001	Power transformer	U.S.A. model	1
36	233 6206 000	Power transformer	Europe,U.K models	1
37	9KA 2A29 7A	Mech. Ass'y FG40D		1
38	9KA 92G0 97	Clamping cam		1
40	9KA 2A29 63	Clamper Ass'y		1
43	9KA 92G1 01	Loader gear		1
44	9KA 2A29 0A	Tray motor Ass'y		1
45	9KA 92G0 96	Pulley gear		1
47	9KA 2A28 9A	Clamping motor Ass'y		1
48	9KA 92G1 00	Pulley gear		1
49	9KA 82G3 35	Clamping belt		2
50	9KA 92H0 16	Collar		1
53	204 8373 001	2 P pin jack		1
57	9KA 92P3 96	Top cover		1
59	9KA 92P1 97	Washer 3.2x12x0.8		1
60	473 7501 014	Screw M3x14 Bind Ptite-K		1
63	9KA 82P0 45	Blind plate		1
	9KA 82P0 48	Motor spring		1
65	9KA 92P0 86	Earth plate		1
67	9KA 2G30 0A	FIP cushion		2
69	475 1106 042	Washer 3.3x10x0.8		1
70	475 3100 004	Toothed washer ϕ4	for power trans	1
71	475 1157 017	Poly. washer 3.2x6x0.5C	for turretto gear	1
74	9KA 2P34 7A	Turretto stopper		2
75	9KA 82P0 84	Turretto holder		2
76	9KA 92P0 93	Blind sheet -V		1
77	475 1160 004	Toothed washer ϕ4 Black	for turretto DP	1
78	477 0224 028	SP washer		-
79	445 8028 009	Cord holder		1
101	473 7509 016	Screw M4x10 Bind P tite	Black NI	-
102	473 7015 018	Screw M3x8 B-S tite NI		1
103	477 0262 006	Screw 3x10 special		4
104	473 7508 017	Screw M3x10 Bind P tite	Black NI	31
105	473 7508 017	Screw M3x10 Bind P tite	Black NI	5
106	473 7512 016	Screw M3x12 F/head P tite	Black NI	1
108	473 7002 021	Screw M3x8 Bind B tite	Black	1
120	471 3601 039	Screw M2x3 Bind -K		2
122	473 7508 059	Screw M3x20 Bind P tite	Black NI	1
123	473 0804 064	Screw M3x30 Pan W8B tite-K		3
124	473 7501 030	Screw M3x20 Bind P tite	Black NI	1
126	473 0807 016	Screw M3x14 W8 Pantapping		4
127	473 7505 023	Screw M2.6x10 Bind P tite-K		2
128	445 0033 005	Nylon band 100		1
129	9KA 2P33 9A	NP cushion 14xT6		4
130	9KA 2P33 3A	G-sheet		2
131	9KA 2G32 9A	D.P.W.B. stoppper		1
132	9KA 2P33 7A	Trans bracket		1
133	—	Bottom collar		2
134	9KM 30B0 25	Screw M3 x 25 bind Black		1
135	9KA 2G32 6A	G-cushion		1
136	9KA 2G32 7A	Lader angle		1

PACKING&ACCESSORIES

Ref.No.	Part No.	Part Name	Remarks	Q'ty
150	513 1220 000	Caution label		1
151	513 1381 004	Manufac. date label	U.S.A.,Canada models	1
152	513 2065 002	Laser caution	Europe,U.K. models	1
153	9KA 2P32 0A	UPC label (360)	U.S.A.,Canada models	1
153	517 0123 003	UPC label (260)	U.S.A.,Canada models	1
154	9KA 2P31 3A	Rating sheet	DCM-360 U.S.A., Canada models	1
154	9KA 2P31 4A	Rating sheet	DCM-360 Europe,U.K models	1
154	9KA 2P31 5A	Rating sheet	DCM-260 U.S.A., Canada models	1
154	9KA 2P31 6A	Rating sheet	DCM-360 Europe,U.K models	1
155	394 0036 003	Battery (GER6M)		2
156	399 0313 009	Remoto control unit	RC-258	1
157	511 2896 000	Operating instructions	U.S.A.,Canada models	1
157	511 2897 009	Operating instructions	Europe model	1
157	511 2898 008	Operating instructions	U.K. model only	1
158	203 3223 002	2 P pin cord		1
159	515 0690 006	DEL warranty HOME	U.S.A.,Canada models	1
170	503 1125 001	:Cushion	U.S.A.,Canada &Europe models	2
170	9KA 2G32 4A	:Cushion	U.K. model only	2
171	505 8092 036	Laminate envelope		1
172	505 8006 019	:Envelope		1
173	9KA 2P31 1A	Carton case	DCM-360	1
173	9KA 2P31 2A	Carton case	DCM-260 U.S.A.,Canada & Europe models	1
173	9KA 2P33 2A	Carton case	DCM-260 U.K. model only	1
174	9KA 2G33 1A	Carton spacer		2

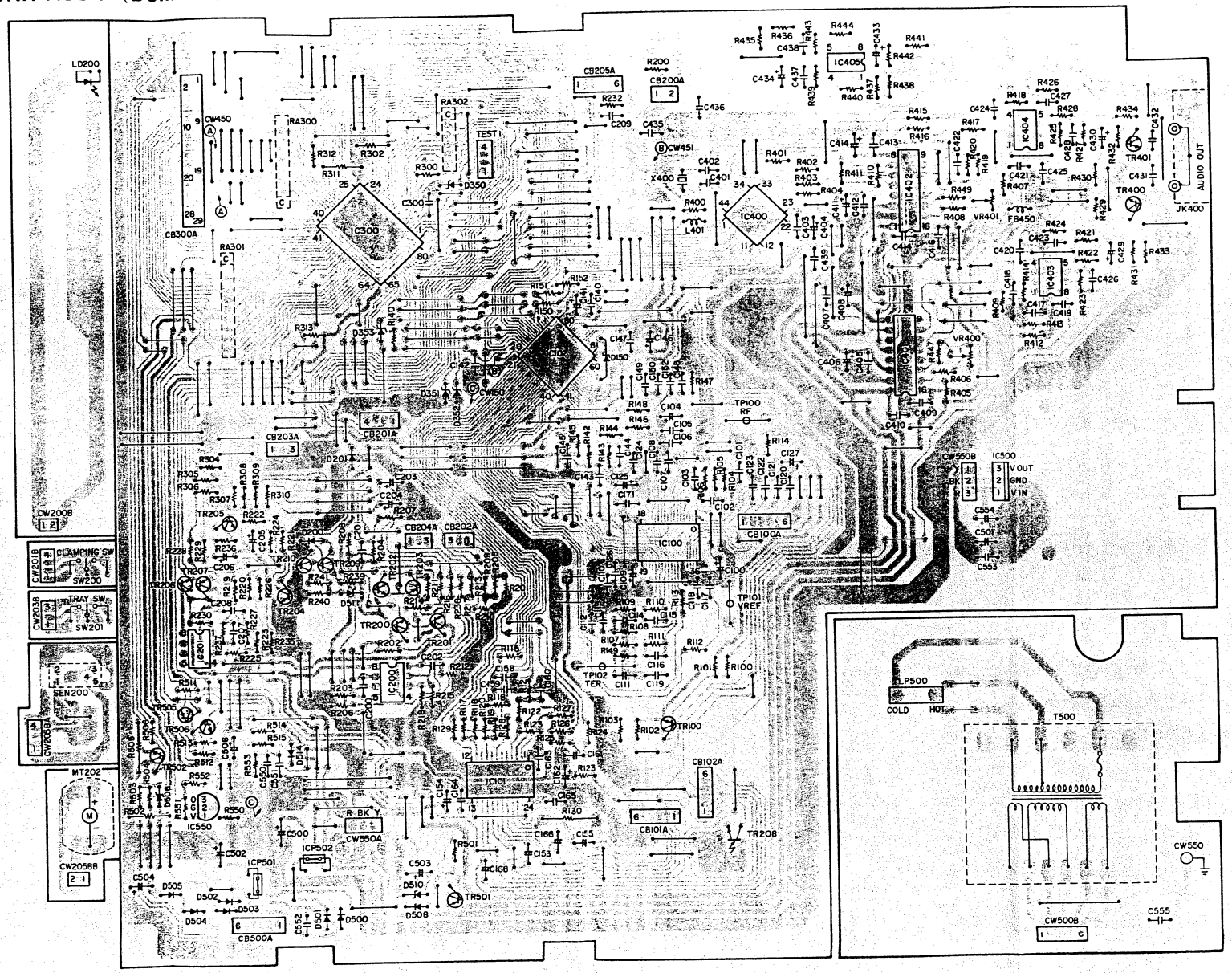
EXPLODED VIEW OF CHASSIS AND CABINET



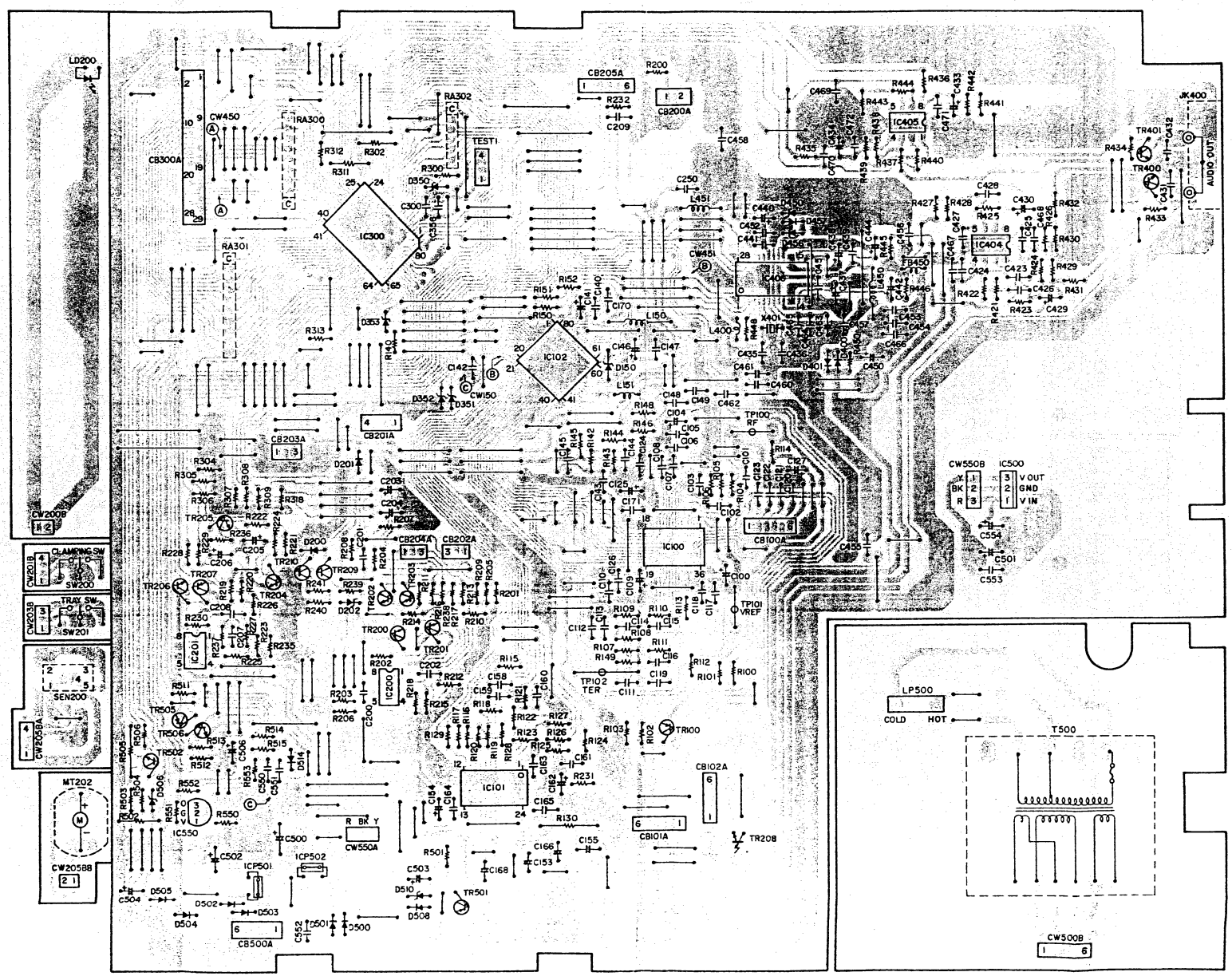
WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

PRINTED WIRING BOARD

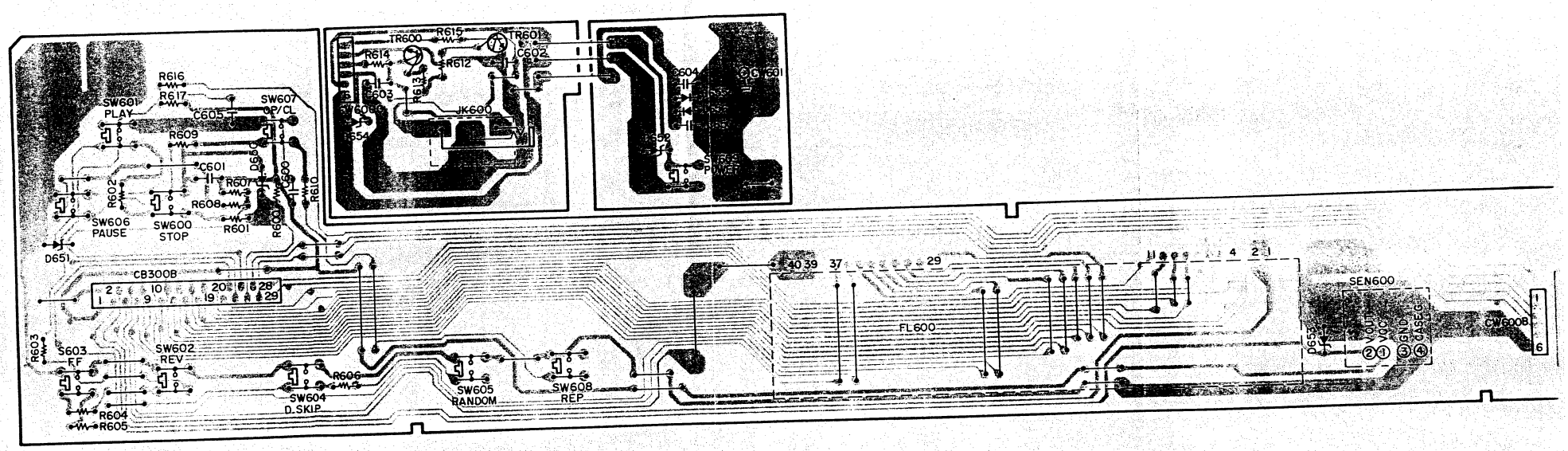
MAIN P.W.B. UNIT ASS'Y (DCM-360)



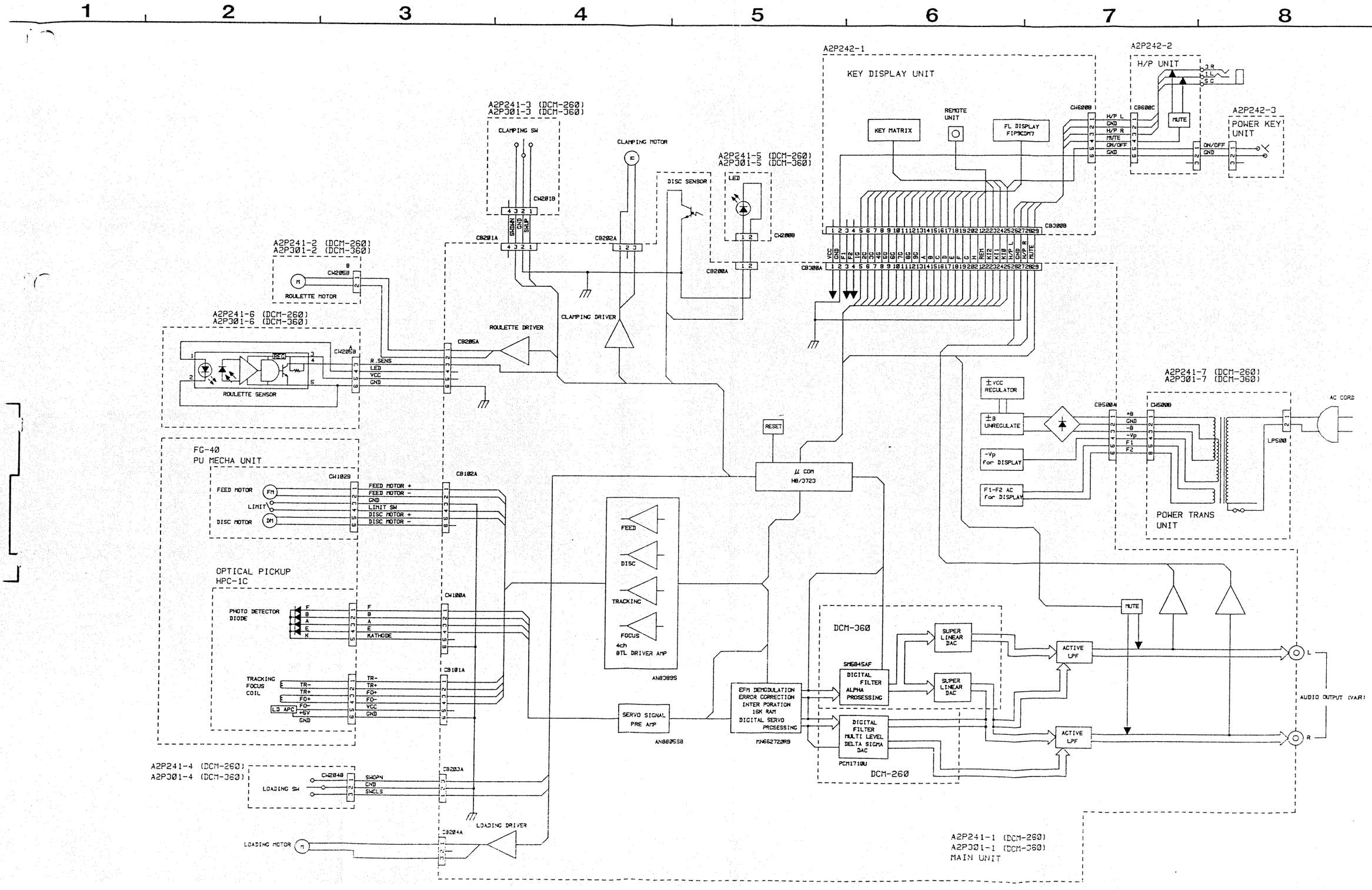
MAIN P.W.B. UNIT ASS'Y (DCM-260)



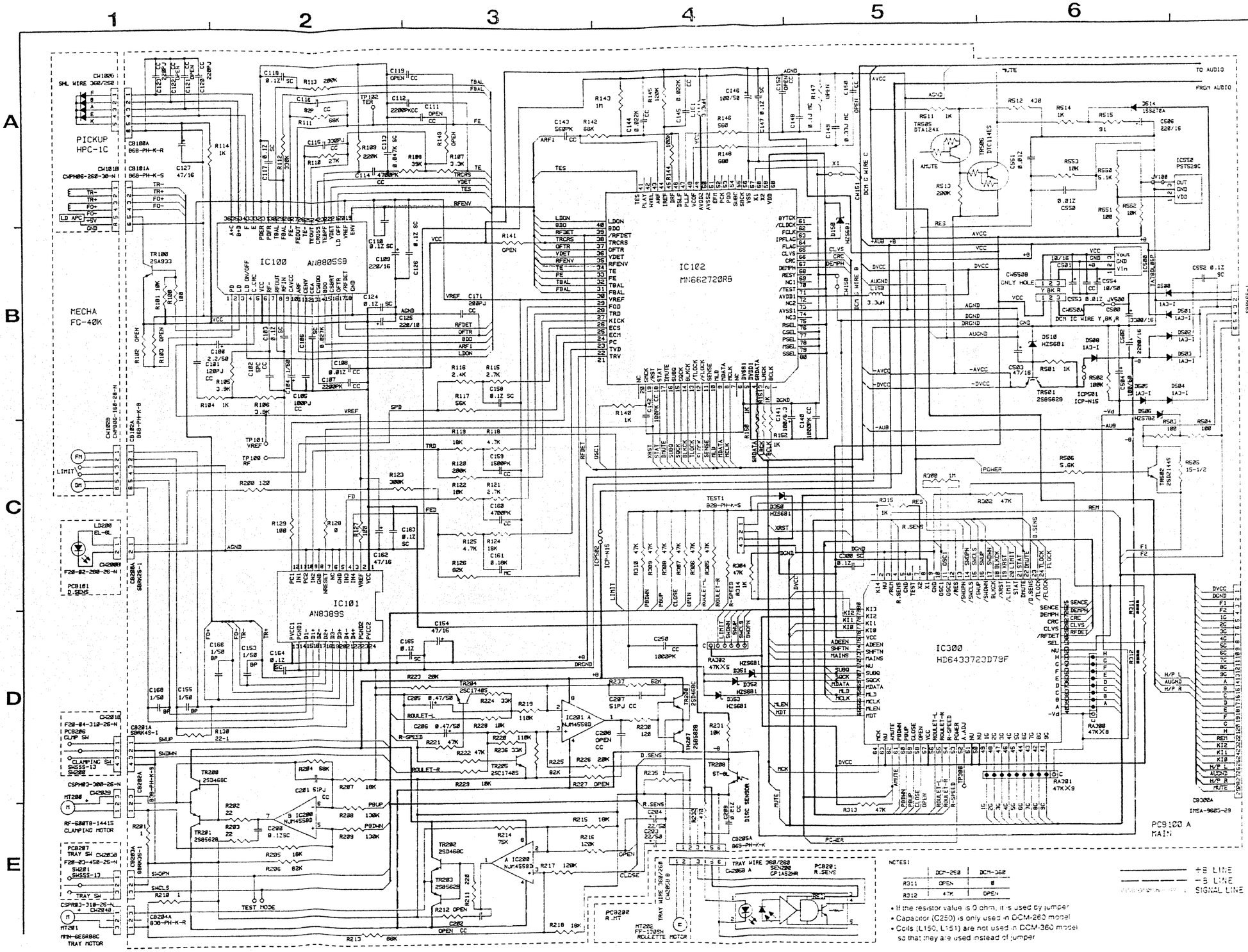
DISPLAY P.W.B. UNIT ASS'Y (DCM-360/260)



WIRING DIAGRAM



SCHEMATIC DIAGRAM - 1/4 (DCM-360/260)



NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

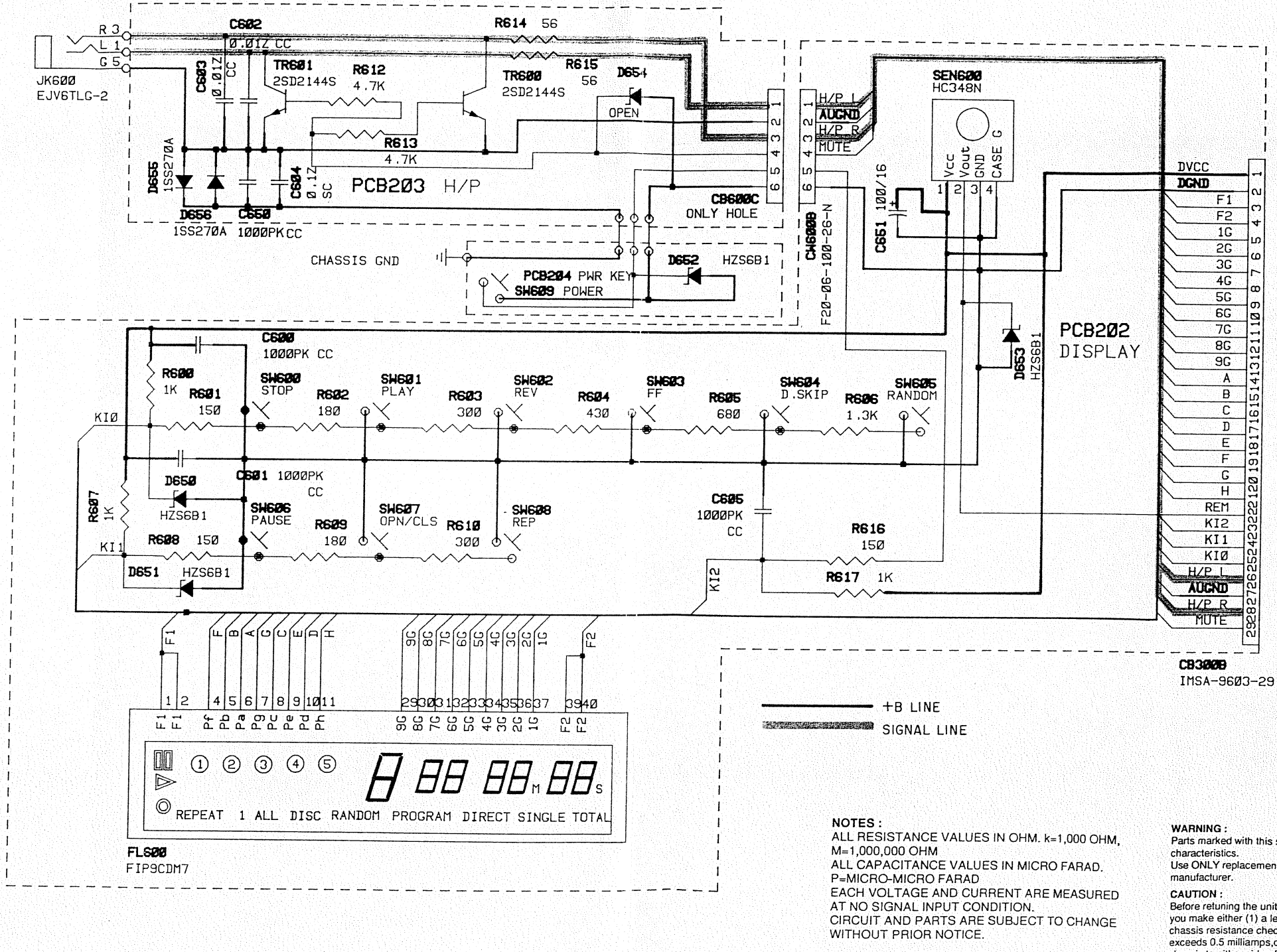
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES)	DCM-260	DCM-360
R311	OPEN	0
R312	47K	OPEN

- If the resistor value is 0 ohm, it is used by jumper.
- Capacitor (C250) is only used in DCM-260 model.
- Coils (L150, L151) are not used in DCM-360 model so that they are used instead of jumper.

+B LINE
−B LINE
SIGNAL LINE



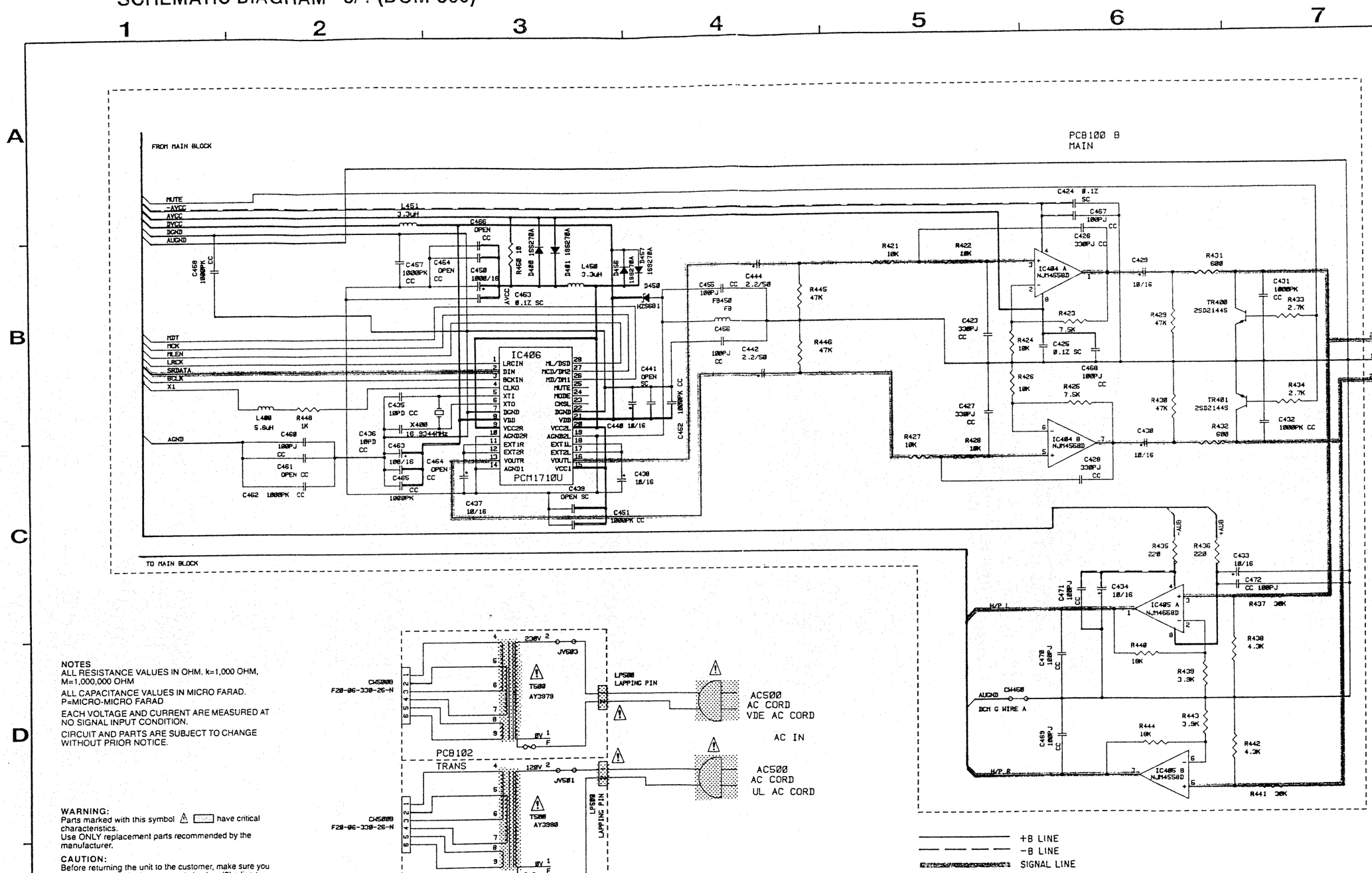
NOTES :
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING :
Parts marked with this symbol ⚠ characteristics.
Use ONLY replacement parts recomm manufacturer.

CAUTION :
Before retuning the unit to the custome you make either (1) a leakage current c chassis resistance check. If the leakag exceeds 0.5 milliamps,or if the resistan chassis to either side of the power cord 240 kohms,the unit is defective.

WARNING :

SCHEMATIC DIAGRAM - 3/4 (DCM-360)



NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

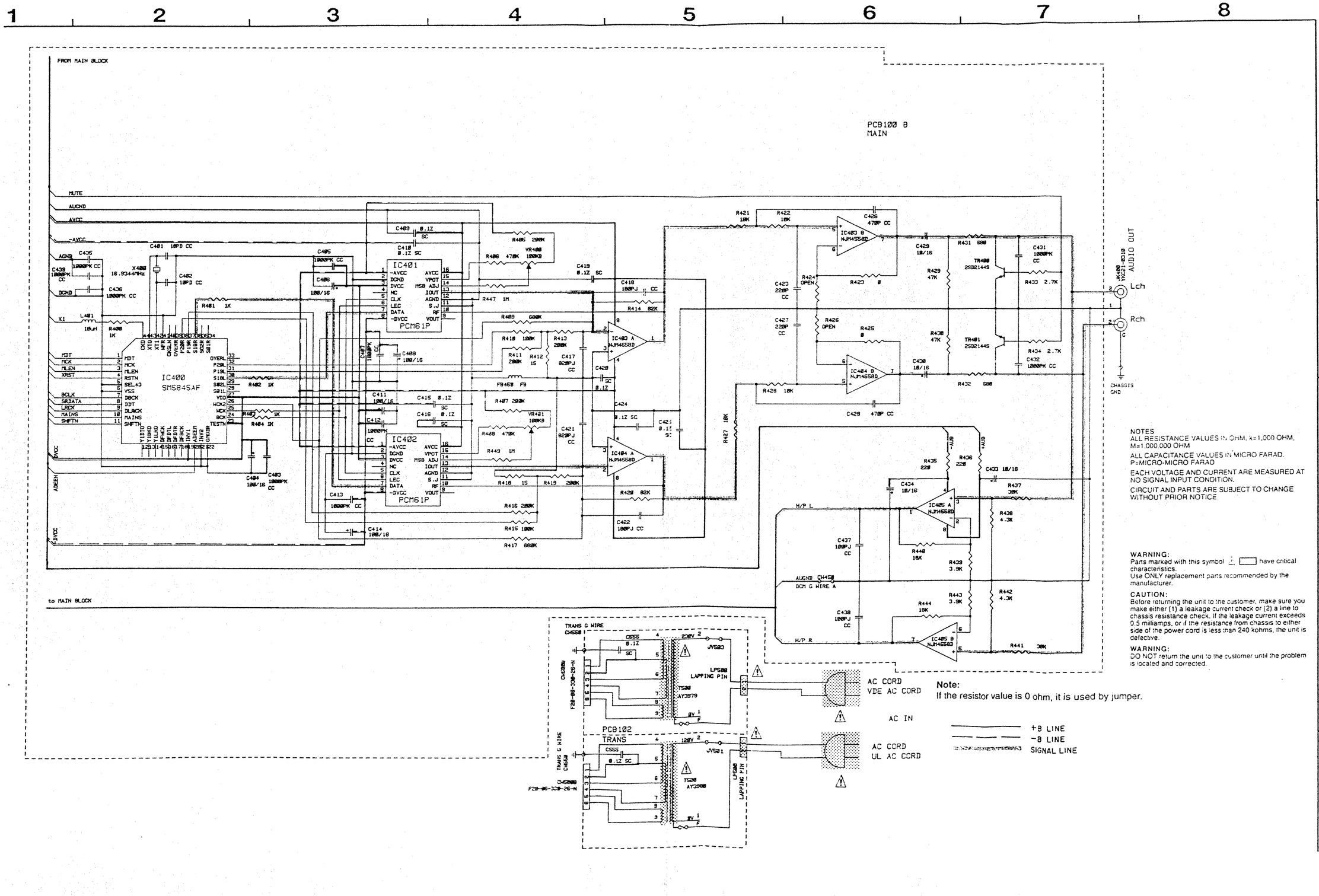
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM - 4/4 (DCM-260)



NOTES
ALL RESISTANCE VALUES IN OHM, k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

Note:
If the resistor value is 0 ohm, it is used by jumper.